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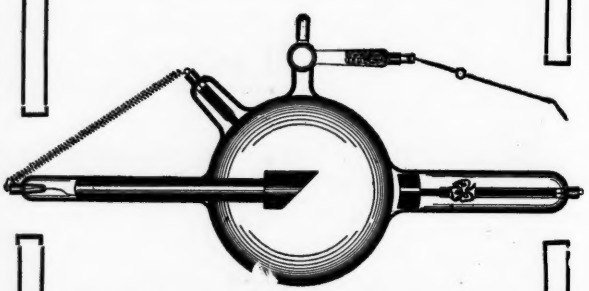

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# THE MEDICAL JOURNAL OF AUSTRALIA.

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## THE SYMPTOMS, PROPHYLAXIS AND TREATMENT OF TOXÆMIA OF PREGNANCY.[1]

By J. A. G. Hamilton, M.B.,
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### The Symptoms.

The causation and treatment of toxæmia of pregnancy are one of the most extensively discussed themes in obstetrics. Hundreds of investigators in all parts of the world have for years been working ceaselessly on these questions, with but comparatively little result. In fact, the whole subject of the toxæmia of pregnancy, in spite of all that has been done, remains today the greatest unsolved problem in the obstetric world. Maternal toxæmia may not cause as many deaths as sepsis, or as much physical pain as dystocia, or even as long a train of morbid sequelæ as labour traumatism, but all of these are largely preventable, and we have the remedy in our own hands. Their causes are known, but the toxæmia in all its varied forms spreads its terrors without our being able to assign a cause definitely, or lay down definite rules for a rational and consistent treatment. But if we know little of the causation of puerperal eclampsia, we do know that in a large number of cases, in which the disease is threatened, it can be warded off by appropriate means, and success depends on an early recognition of the symptoms of the pre-eclamptic state, so the prenatal care of the pregnant woman is of the utmost importance. Perhaps in time we may see compulsory notifications of pregnancy, which has been tried in some villages of France with excellent results, but at present there seem many difficulties in the way, just as we see in the compulsory notification of venereal diseases. But we will all readily admit that every prospective mother should have skilled attention both before and at the time of her confinement, preferably in a well-equipped hospital. Pregnancy clinics for prenatal cases have been started in Edinburgh and other centres, and have proved a great success; they will, no doubt, grow when once started and will be accepted by the public and will educate them rapidly as to the value of prenatal care of the pregnant woman. Such clinics will offer an ideal place, in which to study and teach many sides of obstetrics of which at present we know but little. Prenatal care materially reduces maternal mortality from toxæmia and eclampsia. It also reduces maternal mortality in *placenta prævia*, and in contracted pelvis and the morbidity following labour in these cases. It also reduces still-births, and fœtal mortality in toxæmia, contracted pelves, and in syphilis. Whether the question of medical supervision during pregnancy be considered from the point of view of the welfare of the mother and unborn child, or from the standpoint of the increase of pathological and therapeutical knowledge of the profesion, there ought to be no real difference of opinion that every pregnant woman should be seen by a doctor during the later months of her pregnancy, and have such supervision, advice and treatment as her condition requires. If medical men are to carry out this prenatal care in a conscientious manner, then the midwifery fees as at present charged are absolutely inadequate. Properly equipped prenatal clinics and maternity homes should be provided for the poorer classes, who are unable to pay for such attention; or at any rate it should be the duty of every Government to see that the poorer women have skilled attention both before and at the time of their confinement, and such attendance should be paid for out of the public purse. Maternity benefit is granted under the National Insurance Act in England, and under the "Baby Bonus" Act in Australia, but it is only obtainable after confinement. In many cases the need for pecuniary help is greater in the prenatal period, and would often enable the badly nourished mother to produce a vigorous, instead of a puny, offspring. The £5 baby bonus is a step in the right direction, but the Act as at present administered, is little better than a farce and does little practical good. It is frequently paid to parents, who from their financial positions do not require it, and by those who do require it, the money is rarely put to its proper use. Grants of money for such special purposes are only too apt to be misapplied. Perhaps I have wandered somewhat from the original text of my subject, but after all the prenatal care of the pregnant woman spells prophylaxis against the toxæmia, as well as the many other complications of pregnancy, and is preventive medicine as applied to obstetrics.

Toxæmia of pregnancy might for convenience be divided into (1) pre-eclamptic toxæmia; (2) eclampsia; (3) toxæmic vomiting of pregnancy; and (4) acute yellow atrophy of the liver.

*Pre-eclamptic Toxæmia.*—Most writers devote much space and time to eclampsia, and little to pre-eclamptic toxæmia. This, in my opinion, should be reversed. Eclampsia in many cases is easily prevented; in the present state of our knowledge it is not easily cured. Here prophylaxis is of primary importance. Every obstetrician should familiarize himself with the symptoms of this condition, should search for them in every case, and having found them, should lose no time in the institution of suitable measures of relief. What are these symptoms? They may be best considered under four heads. Those referred to:—

(1) The urinary system,
(2) The circulatory system,
(3) The nervous system,
(4) The digestive system.

(1) *Symptoms referred to the urinary system.*—The most definite or characteristic symptoms are those which are shown by the analysis of the urine. Of the pathological changes albuminuria comes first. The presence of albumin during pregnancy should always attract suspicion, especially if found at repeated examinations. It is safer to regard every case of albuminuria, occurring in the latter months of pregnancy, as

[1] Read at a meeting of the South Australian Branch of The British Medical Association on October 25, 1917.

one of toxæmia and to treat it as such, unless the presence of albumin can be accounted for in any other way. In doubtful cases it might be necessary to examine a catheter specimen. The urine is generally markedly reduced in quantity. Of course these symptoms may be due to nephritis, since in it we may have both œdema and albuminuria. Nephritis, however, occurring at this time is usually a continuation of a process antedating pregnancy, and the symptoms are marked during the early months, while pre-eclamptic toxæmia is distinctly an affection of the latter part of pregnancy, and often occurs in strong and vigorous young women, who have no history of nephritis or other serious illness, so that the determination of the presence and the approximate quantity of albumin, the presence of a variety of casts, and the measurement of the total quantity of urine, which is usually much decreased, will remain the chief available means of diagnosis, as far as the urine is concerned.

(2) *Symptoms referred to the circulatory system.* Amongst these symptoms œdema is the most prominent and distinctive. Some slight swelling of the feet is common enough in multiparæ. It is specially noticed when she has been on her feet much during the day, and is often associated with varicose veins. When, however, it is marked, or when it occurs in primiparæ, or is present when the patient arises in the morning, it ought to be regarded with suspicion. It is a safe rule to regard every case of œdema of the feet as a possible toxæmia, and to examine the urine. When the swelling extends up the legs and pitting on pressure is elicited, marked evidence of toxæmia will usually be found. Œdema of the upper extremities and puffiness of the eyelids are significant signs. Marked œdema of the labia and general œdema are evidences of profound toxæmia. A pulse of high tension and a blood pressure of 160 or over are highly suggestive symptoms.

(3) *Symptoms referred to the nervous system.*—Amongst these, headache is especially prominent, and when continuous and severe, it is a bad omen, perhaps portending an eclamptic attack. Other symptoms are nervousness, irritability, insomnia, twitchings and ocular disturbances. The latter are of special significance. The woman may complain of trouble in reading or sewing, or even that she cannot see at all.

(4) *Symptoms referred to the digestive system.*—Nausea and vomiting are so common in early pregnancy as to attract little attention, unless they are excessive. Occurring in the latter months, they are often toxic in origin. Any kind of gastric or abdominal pain not connected with uterine contraction, is to be regarded with suspicion. Severe epigastric pain, as a prodromal symptom, is not a common one, but in my experience, it is a most unfavourable one. The cause of this pain is not clear; it may be most intense, reminding one of the gastric crises of locomotor ataxy.

In untreated cases, and sometimes in spite of treatment, things go from bad to worse, albuminuria and œdema increase, and the amount of urine decreases. Headache is severe and persistent, and the patient may partially or entirely lose her sight. Not all of these symptoms are present in every case, nor are they always pronounced, but we should never forget to seek for them, although the patient may make no complaint. To wait until the clinical picture is complete before commencing treatment, may be to wait too long.

### Treatment.

The first manifestation of toxæmia should be the signal for the institution of treatment. The earlier treatment is begun, the better the chance of success. When albumin is found in any considerable quantity in a woman in the later months, the case should be taken in hand at once. The patient should be strictly confined to bed. It is a matter of every day experience that these patients improve rapidly, if kept in bed for a time. She should be put on a milk diet; she should drink large quantities of water. Free purgation is essential, and for this purpose 2 grammes *pulv. jalapæ* may be given, or 4 grammes of magnesium sulphate every hour until free purgation is produced. In addition, free colonic irrigation with hot saline solution should be employed. Diuretics, in the shape of digitalis or diuretin, may be given; but I have never found the ordinary diuretics do much good in these cases. Elimination by the skin should be encouraged by daily hot baths, and if symptoms are threatening, the hot pack often brings improvement.

### Eclampsia.

In spite of the preventive treatment just mentioned, if the renal secretion does not improve, and if the prodromata of eclampsia come on, the question of induction of labour presents itself. The practitioner is generally sent for, because a fit has occurred, and in many cases it will happen that there will have been no prophylactic treatment because the patient has not been under medical care, and neither she nor her friends will have suspected that anything was wrong until they are alarmed by the occurrence of a fit. The patient should be sent to a well-equipped public or private hospital, as surgical interference may be required. I say advisedly a well-equipped hospital, as some of the so-called maternity homes are little, if any, safer than a private house, and many of the so-called maternity nurses have very vague ideas of surgical cleanliness, not to say anything of surgical asepsis. (I may mention here that South Australia is the only State which has no Act governing the registration of midwives.) The patient should at once be put to bed in a quiet, darkened room, as any sudden noise or light may bring on a convulsion. The young or inexperienced practitioner, when called in to a case of eclampsia, is apt to be confused by the sudden and alarming character of the situation, and by the multitude of remedies and expedients that have been recommended, but he may console himself that the means of real value are few, and usually not difficult of application. While the necessary preparations for delivery are being made, the other curative measures should be used. Fifteen milligrammes of morphine should be injected, and repeated if necessary; oxygen should be procured, if possible, and freely administered, especially during a convulsion. A special nurse should watch the patient, and be instructed to see that no harm comes to her, by falling

out of bed, or by suffocating in the bed clothes. A piece of wood or folded towel should be placed in the patient's mouth, to prevent her tongue being badly bitten; a piece of cork should never be used. I have seen one bitten in small pieces during a fit; it might get into the larynx and choke the patient.

After the morphine has taken effect, the patient should be put in a hot pack and covered with blankets, and surrounded with hot bottles, not too hot, as a patient in her condition is particularly susceptible to burning. During the coma which follows a fit, it is a good plan to bring her head to the edge of the bed and well on one side, to allow the saliva to escape, and prevent it entering the trachea. Elimination by the bowels, kidneys and skin should be encouraged. The stomach should be washed out, and 30 c.cm. of castor oil or 30 grammes of magnesium sulphate dissolved in water, poured in and left in the stomach. If the patient is unconscious, a drop or two of croton oil may be placed on the tongue and the colon freely irrigated with hot saline solution, and saline solution injected under the breasts. This not only has a diuretic action, but serves to dilute the toxins circulating in the maternal blood. It is wiser not to use any of these measures until the patient is quieted with morphine, as any disturbance may bring on another convulsion. In my experience the most significant index is the pulse. If it remain strong and regular, and even though of high tension, there is some chance of recovery, but if it become quick and irregular, the prognosis is bad. Profound coma and repeated convulsions are, of course, unfavourable, but are by no means hopeless.

After having used these measures, the attendant should then make a careful examination, and consider the probable difficulties of delivery, and especially the condition of the cervix. The longer an attack of eclampsia is allowed to continue, and the more profound the coma becomes, the more easily is the patient affected by any surgical interference. It has often been advised that, before proceeding to operative delivery, one should wait until all other methods have failed. This seems to me highly illogical. Operative delivery soon after the first convulsion seems to me to give a better chance to the woman than the same measures performed as a last resort.

Before proceeding to discuss the obstetric aspect of the question, I will refer briefly to some of the numerous measures which have been advocated for dealing with the convulsions and toxæmia.

*Morphine.*—For some years I have used 0.015 gramme of morphine injected sufficiently often to keep the patient in a quiet sleep for some hours, with satisfactory results. The use of morphine has been condemned on theoretical grounds, as tending to lock up secretions; but this is purely theoretical, and it is the only means I consider of suppressing the convulsions. It is, of course, true that the convulsions are only a symptom of the eclampsia; but no one who has watched these convulsions can doubt that they in themselves are the chief source of danger. Most authorities commence with 0.03 gramme of morphine, repeating in smaller doses; but I feel satisfied I have seen two patients, who had a preliminary dose of 0.03 gm., sink into a profound coma, and never come out of it again. Veit believes that it does good by producing muscular relaxation and by modifying the tremendous shock to the nervous system from the profound toxæmia and resulting convulsions.

*Chloral hydrate* enjoys a good repute amongst many competent observers. It can be given in 2.0 gm. or 2.6 gm. doses *per rectum*, repeated as necessary. It has been shown that this drug is tolerated by eclamptics in large doses.

*Veratrone* has been extensively used in America, and recently Haultain, of Edinburgh, has reported several successful results from its use. It is most useful in cases with high tension and pulse-rate. Within half an hour of its injection the tension of the pulse is markedly reduced, and the rate generally falls by 40 or 50 beats. The full dose is 1 c.cm. hypodermically. Parke, Davis & Company are now putting it up in 0.5 c.cm. doses, which are probably safer. I have used it with good results in patients of plethoric habit with a full and bounding pulse, but only in those cases. I should be reluctant to use any cardiac depressant as a routine practice in eclampsia, especially if any obstetric or surgical operation is required, as it is not possible to foretell the amount of blood which will be lost during birth, or the reaction of a toxæmic patient to the strain of delivery.

*Venesection* I used before veratrone came into use. Besides lowering the high tension, it may be looked upon as an eliminative measure, as it removes some of the toxins contained in the maternal circulation.

*Thyroid extract* has been suggested by Nicholson, of Edinburgh, who reports good results from its use, on the assumption that eclampsia is due to thyroid deficiency. Howard says that one of the functions of the thyroid is to neutralize or destroy toxic substances formed in the metabolism of the rest of the body. Others have shown that the thyroid is antagonistic to bacterial toxins and certain other poisons, as well as toxic waste products. I have found thyroid glands act particularly well as a diuretic in the pre-eclampic state in a few cases.

*Pilocarpine* used to be extensively employed, but on account of its tendency to increase the saliva and bronchial secretion, I think it is a dangerous drug.

*Chloroform.*—It was formerly the custom to treat convulsions by the intermittent administration of chloroform, continued over long periods. This is now generally recognized to be a bad practice. It has been clearly shown by Cragin and other investigators that chloroform produces lesions of the liver and kidneys, similar to those found in toxæmia of pregnancy. If an anæsthetic has to be given, then ether or ether-oxygen is the proper one to use.

*Renal decapsulation*, as advocated by Edebohls, has not found favour on account of the risk of the operation in a woman in a poor condition for a lengthy operation. I tried it once in a case of post-natal eclampsia. The patient had the usual symptoms of eclampsia before delivery. After delivery her condition somewhat improved, but for two or three days she passed only a small quantity of urine loaded with albumin. I performed decapsulation of her kidneys with an excellent result; this was probably a case of uræmia, rather than toxæmia of pregnancy.

*Lumbar Puncture.*—A writer in the *Journal of the American Medical Association* reports two cases in which lumbar puncture successfully controlled puerperal convulsions; he says that it does not take the place of other forms of treatment, and should only be used for the convulsions of eclampsia, not for the toxæmia of pregnancy.

*Oxygen.*—I have lately read a very excellent work on obstetrics by Shears, of New York, recently published. He says: "Various observers have endeavoured to find the toxin of toxæmia of pregnancy; but these efforts have been barren of results. So many skilled observers in all parts of the world have been working in this field that it seems difficult to believe that any specific poison should have escaped observation. May it not be that we have been looking too far for the cause of the symptoms-complex, which we call toxæmia of pregnancy? In other words, may not suboxidation itself be the real cause, or, at all events, a prominent factor? It is a well-known fact that pregnant women are badly affected by air of crowded places or ill-ventilated rooms. The clinical symptoms, from the subjective dyspnœa, so common in pregnancy approximately normal, to the headache, œdema, and final convulsions, of profound toxæmia, are strongly suggestive of want of oxygen. This theory helps to explain why eclampsia occurs so often in robust and vigorous young women. These patients have a high oxidative equilibrium, and are the first to suffer from oxygen deficiency." He reports that he has for more than two years treated all his toxæmic cases by the free use of oxygen inhalations, in addition to the usual treatment, and that all these patients have done well, and none of them have gone on to the development of convulsions.

There are many differences of opinion in the methods of treatment I have just described, but when we enter on the consideration of the obstetrical treatment, I might describe the authorities as being divided into two hostile camps, their actions depending in a large degree on the views they hold as to the causation of eclampsia. One, which is called the "conservative" or Rotunda school, believe that the toxin is elaborated from the food taken in by the mother, owing to some fault in her metabolism. The other, or what is called the English or Continental school, considers it to be due to the fœtus, and have recently advanced the theory that the symptoms are due to placental albumin finding its way back to the maternal blood stream in quantities greater than can be dealt with by the antibodies which are elaborated to deal with it. It is on the presence of these antibodies in the maternal blood that Abderhalden's serum test for the diagnosis of pregnancy is based. Those holding the first view advise little or no interference with the process of labour, while to those holding the second, no methods are too radical, induction of labour, *accouchement forcé*, vaginal or abdominal section being each advised in particular cases. The Rotunda treatment, briefly, is as follows: Upon admission, the patient is put in a dark room, is catheterized and the blood pressure taken. Three centigrammes of morphine are injected, followed by stomach lavage and 60 c.cm. of castor oil poured down the stomach tube, colonic irrigation of 22 litres of a 5% glucose solution or a 0.6% solution of bicarbonate of soda is given. If the blood pressure is 175 systolic, venesection is done, and a sufficient quantity of blood extracted to bring the pressure down to 150 systolic. The patient is then kept quiet, and 0.015 gm. of morphine is given as often as is necessary to control the fits. This treatment was started some years ago by Sir William Smyly, when he was Master of the Rotunda, and with some modifications has been carried out and elaborated by subsequent Masters—Purefoy, Tweedy and Jellett. I had an opportunity of discussing this matter with some members of the Rotunda staff, when I visited that institution two years ago. They maintained that, under this treatment, the convulsions usually ceased and the patient delivered herself in a short time. Sir William Smyly, when he started the morphine treatment at the Rotunda, reduced the mortality rate in eclampsia from 35.3% to 20%. Tweedy, during his Mastership, had 78 cases, with six deaths—a maternal mortality of 7.7%. Tweedy lays great emphasis on the importance of stomach and colonic lavage, and teaches very strongly that indigestible food is a most important exciting cause of eclampsia. He does not allow medicine of any sort to be placed in the mouth of an unconscious patient, but 60 c.cm. of castor oil, with three drops of croton oil, are poured into the stomach just before the lavage tube is withdrawn. It is with considerable trepidation that I venture to differ from any teaching which emanates from the Rotunda, where I was a student, especially when it is vouched for by men like Smyly, Purefoy, Tweedy and Jellett, all of whom have occupied the position of Master for the term of five years, and have had a vast experience of midwifery work. But I am absolutely convinced that I have seen women with eclampsia who would most certainly have died, had not the uterus been rapidly emptied. Paterson, in the *American Journal of Obstetrics*, reports that he had examined the records of a large number of cases, and had found that in 615 treated by prompt delivery the maternal mortality was 15.9%, while in 390 treated expectantly it was 28.9%. I cannot help thinking the "conservative" in eclampsia must become a "radical" under special circumstances.

It seems to me that reason and experience show that the chances of the eclamptic patient are improved by the emptying of the uterus. This removes the fœtus and placenta, which are generally believed to be in some way the cause of the toxæmia. If the patient is in labour, the process should be hastened as much as is consistent with the safety of the mother. If she has reached the second stage of labour, forceps should be applied, but before anything is done, the membranes should be ruptured. This rapidly diminishes intra-uterine tension and reflex irritation. If she should be in the first stage and the cervix is easily dilated, manual dilatation can be employed and delivery completed by forceps or version; but if labour has not commenced and the cervix is long and not dilated, some radical measures must be adopted. The slower methods, which include bougies, packing the cervix with gauze, rubber dilating bags, are, in my

opinion, contraindicated in the treatment of eclampsia with an undilated cervix.

I feel convinced that if interference is decided upon, it should be by a rapid method under anæsthesia, such as vaginal or abdominal Cæsarean section. The fœtus, as well as the mother, is affected by the eclamptic poison; hence, for the safety of the fœtus, the uterus should be emptied as soon as possible after the first convulsion. If the patient is a multipara, the vaginal operation is, in my opinion, the operation of choice; but if she is a primipara with a narrow vagina, the abdominal operation is, perhaps, the better one. Any obstetric condition which makes delivery by the natural passages prolonged and difficult may be an indication for abdominal Cæsarean section. In short, when delivery is decided upon, the uterus should be emptied by the method which will admit of the work being performed in the quickest time and with the least amount of trauma and shock to the mother and child. It must be borne in mind that there is more danger of sepsis when the abdomen is opened, and that the mortality in abdominal Cæsarean section is distinctly higher, if vaginal examinations have been made prior to the operation. The danger increases with the number of examinations made and the lack of asepsis employed.

Whitridge Williams, of the Johns Hopkins University, in a recent article on "The Abuse of Cæsarean Section," considers that the chief factors concerned in bringing about this abuse are to be found in the technical ease of the operation, and the glamour which still surrounds it in the professional and lay mind. He reports a total mortality in his series of 8%; but only a single patient was lost when the operation was done at the time of election. He considers that ideal results are only obtained when the operation is performed at an appointed time at the end of pregnancy, or shortly after the onset of labour, upon uninfected women amid suitable surroundings, and that the mortality of Cæsarean section increases with every hour the patient has been in labour, and approaches 10% when performed after the second stage has become well established, and goes higher still when the operation is undertaken upon frankly infected or exhausted women. He holds that it is an abuse to perform conservative Cæsarean section after the patient has been long in the second stage of labour. Under such conditions he considers it advisable to terminate labour by vaginal Cæsarean section, or some other procedure; but if abdominal Cæsarean section is imperatively necessary, it should be followed by amputations of the body of the uterus or by total hysterectomy.

Hence I think when there has been infection from below, and the pelvis and soft parts are normal, the vaginal method should be substituted for the more brilliant abdominal method. Its undeniable advantages are its simplicity and rapidity of execution, the fact that it does not involve the general peritoneal cavity, and that it causes less shock, and gives excellent drainage. According to Rongy, rupture of the Cæsarean scar occurs in 3% of the cases, either in labour or during the latter part of the pregnancy. Proper suturing of the uterine wound will not always prevent subsequent rupture of the scar. I have performed vaginal Cæsarean section in some desperate cases on patients, who would not, I feel sure, have stood the shock of an abdominal operation, and no matter how desperate the case may seem, it seems to me a wise plan to empty the uterus by the quickest and safest method, as giving the woman her only chance. I saw a case of eclampsia a few years ago with Dr. Swift. This woman had been in convulsions off and on for nearly twelve hours; she was in a state of profound coma, with a small and rapid pulse; in fact, her condition was extremely bad, and we both looked upon her case as a desperate one. However, I emptied the uterus by vaginal Cæsarean section, and she made a good recovery.

As there is very little mention of vaginal Cæsarean section in the text-books, I will briefly describe the technique I have elaborated and found useful.

The anterior lip of the cervix is drawn down with vulsellum forceps, a ligature, as a mattress suture, is placed on each side of the middle line, and a third ligature is placed on the posterior lip. I have found these ligatures of the greatest importance and assistance, as after delivery the cervix is so softened and altered in shape and appearance that, without them, it is almost impossible to find the exact edges of the suture line. A transverse incision is made, as in vaginal hysterectomy, and the bladder pushed up with gauze, well above the internal *os* and held there by a retractor, such as Pryor's trowel. This exposes the cervix and the lower uterine segment freely. The cervix is drawn well downwards by the traction ligatures and under guidance of the finger, the cervix is divided with a knife or blunt-pointed scissors. The incision should not pass the point where the peritoneum is adherent to the uterus; on the other hand, if it is too short, it may tear and open the peritoneum. There is usually little hæmorrhage. The membranes are then ruptured, and the fœtus extracted by forceps or version. I have never found it necessary to make an incision in the lower lip, although it may sometimes be required. The incision is then closed with interrupted catgut sutures. The suturing is much facilitated by placing a traction suture at a convenient height, and making traction on it whilst other sutures are being placed. Pressure by an assistant on the fundus also makes the cervix more accessible. The vaginal mucosa is then closed by a fine running catgut suture. This operation, after a few trials, can be completed in about 20 or 30 minutes, and is much safer than forcible attempts at dilatation by the hand, or any of the steel instruments that have been invented for complete dilatation of the cervix, such as the Bozzi dilator and its modifications. I have used these instruments a few times before vaginal Cæsarean section was introduced, and consider them most dangerous weapons. I have performed vaginal Cæsarean section now in twelve cases, and have had only one accident. That case was followed by a vesico-vaginal fistula; but the patient was operated on in an emergency, and I had not an adequate supply of instruments, and no anterior vaginal retractor to keep the bladder out of the way.

### Toxæmic Vomiting of Pregnancy.

This is generally called "pernicious vomiting"; the latter title, although appropriate, is hardly scientific. The so-called "morning sickness" of early pregnancy is so common that it is hardly to be regarded as abnormal, and generally ceases after the first few months. When the nausea and vomiting are not limited to the morning hours, but continue throughout the day and night, the condition becomes exaggerated, the patient becomes rapidly emaciated, and the general condition becomes so impaired as to threaten life, then the vomiting is no longer "neurotic" or "reflex," as Whitridge Williams calls it, but pernicious or more properly toxæmic. No plausible theory has been advanced for this form of toxæmia, but the general opinion is that toxæmic vomiting, eclampsia, and acute yellow atrophy of the liver are all results of one and the same cause acting under different conditions at different periods of pregnancy. Various remedies have been tried for this condition. Oxalate of cerium, opium in one form or another, bromides, iodine, calomel and various others, but the best remedy I have found is adrenalin in three or four drop doses of 1 : 1000 solution.

Hirst reports 36 cases, in 32 of which results were favourable, treated by intra-muscular injection of liquid *corpus luteum*. Hirst believes that the ovary, being inactive during early pregnancy, there is a relative ovarian deficiency and *corpus luteum* will make up this. Dessicated placenta in 0.3 gm. doses have also been tried for vomiting of pregnancy, under the assumption that it is due to placental infarction. Young, of London, says that you should find placental infarcation in every case of toxæmia, and he seems to think that the source of poisoning in toxæmia of pregnancy is due to placental infarction. But if, in toxæmic vomiting, the emaciation is progressive and the vomiting is persistent with a small, rapid pulse, the induction of labour must be seriously considered. If induction has to be done in the earlier months, the cervix can be dilated and the uterus emptied straight away. If the patient has gone to the third month, it is better to dilate the cervix, rupture the membranes and pack the cervix and lower segment of the uterus with sterile gauze, or to use a small rubber bag. The process completes itself, or can easily be completed the next day. The rupture of the membranes generally stops the vomiting at once.

I saw a typical case of toxæmic vomiting of pregnancy a few weeks ago. M.W., *æt.* 27 years, 2½ months pregnant with her first child. Before becoming pregnant, she was a particularly robust young woman, weighing 71 kilograms. From the onset of pregnancy she had constant vomiting, and became very emaciated and weak, losing nearly 25 kilograms in weight. Her pulse was rapid and thready. I kept her in bed under observation for a few days, and put her on a careful diet, with small doses of adrenalin solution. The vomiting continued, and her condition became alarming, with frequent fainting attacks, and a pulse-rate of 130. I dilated and emptied the uterus. The vomiting ceased at once, and in three weeks she had gained six kilograms in weight.

### Acute Yellow Atrophy of the Liver.

It is a remarkable, and up to the present unexplained, fact that pregnancy predisposes to acute yellow atrophy of the liver. More than half of the cases reported have been observed in pregnant women. The most distinctive symptoms are jaundice, with bile and albumin in the urine, vomiting and coma, which may be slight or well marked. The prognosis in this condition is bad, and the only remedy is a rapid emptying of the uterus. Fortunately, it is a rare complication of pregnancy. Several men with large midwifery practices extending over a number of years have informed me they have never met with a case.

An interesting question has been raised by one of my colleagues on the danger of eclampsia recurring in a subsequent pregnancy. He informed me that he had advised a patient of his who had eclampsia, that it would be unwise for her to become pregnant again. In my opinion, this danger does not exist. I have been fortunate, or perhaps I should say, unfortunate, enough to see a number of cases of eclampsia in the course of a large midwifery practice in my earlier days; and later in connexion with my work at the Adelaide Hospital and the Queen's Maternity Home. I have been able to follow many of these patients in their subsequent pregnancies, and have never heard of their having another attack of eclampsia, nor have I been able to find any mention of this danger in the text-books. Lately I have seen two women on whom I had performed some years ago abdominal Cæsarean section for eclampsia. Each of them have been confined since, without any complications arising. As we know so little about the cause of toxæmia of pregnancy, I think we might consider eclampsia an "accident," just as *placenta prævia* or prolapse of the cord are "accidents" of pregnancy.

I am afraid I have wearied you by the length of this paper, but the prenatal care of the pregnant woman and toxæmia of pregnancy are lengthy subjects, subjects which, in my opinion, have not received the consideration they merit, and I need hardly say it is our duty as a profession to do everything in our power to save maternal and infant life. It is only since this war commenced that the public, and I might add the medical profession, have properly awakened up to the necessity for putting an end to the appalling waste of maternal and child life—a waste which can be materially lessened under proper organization. And there are obvious reasons why a special effort should now be made to reduce this mortality as far as possible.

In conclusion, I would suggest that the Council of this Association should take whatever steps they may consider best to impress upon the Government the necessity for providing financial assistance to inaugurate prenatal clinics in connexion with a hospital or maternity home, and at the same time to point out to them that South Australia is the only State which has no Midwifery Act. Every woman should have the skilled attention of a properly-qualified, trained nurse at her confinement, but in this State the untrained "Sairey Gamp" still plies her trade

with disastrous results, as there is no Act here governing the registration and practice of midwives.

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# Reports of Cases.

## A CASE OF INVERSION OF UTERUS—DEATH.

By **Robert A. G. Malcolm, M.B., B.S. (Melb.),**
*Blackall, Central Queensland.*

Mrs. A. D., *aet.* 37 years, was a viii.-para. Her previous labours had been easy. She had never been attended by a medical man except with her sixth child, when, quoting her friends, "the afterbirth was stuck," and medical aid was summoned.

The present labour commenced at 4 a.m. on 11th October, 1917. At 10 a.m. a full-time living female child was born. Judging from the caput the presentation was left occipito-anterior. According to the statement of the "gamp" in attendance, the patient signalized the birth of the child by violent body movements, which gave the attendant much ado to keep her in bed, at the same time clutching at the position of the fundus. She complained of great pain, and felt sick. There was no unusual hæmorrhage. At 10.20 the placenta "came away," together with a "lump," for the delivery of which my services were summoned.

I arrived at 10.45 a.m., and found the patient collapsed and most obviously moribund. A completely prolapsed, inverted uterus, with portions of the membranes attached, was in contact with a filthy sack on which the patient was lying The absence of any but the faintest flicker of pulse, the flabby washed-out appearance of the uterus, and the hunted appealing expression of the poor victim were all too clear evidences of the impending fatal termination which occurred at 10.55 a.m.

The patient was well-known to me. She was decidedly alcoholic, but withal a hard-working woman. She suffered from enteroptosis.

Examination disclosed an old laceration of the cervix and of the perineum. The laxity of the uterine wall was marked, but I could not convince myself that this was more evident in the fundal than in other portions of the uterine wall.

There had been no marked hæmorrhage. The cord was not unduly short (48 cm.), and I have the midwife's evidence that it was not twisted round the neck at least.

Death must be attributed to shock acting on an undermined (alcoholic) constitution; nevertheless, the rapidly fatal termination (less than an hour after the completion of second stage) appears extraordinary. The shock in this case may or may not have been aggravated by attempts at traction on the uterus itself, as the lady in charge evidently expected the "lump" to come away. Indeed the whole case was a most "appalling" commentary on the effectiveness of the Queensland Health Act in respect to its power to control ignorant and dirty "'gamps."

# Reviews.

## WORD BLINDNESS.

The localization of cerebral function has gone on apace since Hughlings Jackson and Ferrier recorded their classical work prior to 1873. Not the least interesting is the association of the left angular gyrus with the function of word-memory. In "Congenital Word-blindness"[1] Dr. Hinshelwood, an acknowledged authority on aberrations of this function, gathers together in book form various papers of his published during the last 20 years. Beginning with acquired word blindness, meaning a condition in which, with normal vision, and therefore the power of seeing letters and words distinctly, the individual is unable to interpret written or printed language, the author describes clinically and pathologically several cases of singular purity, including that of an able teacher who suddenly found he could not read a single word. An examination showed inability to read the largest letters, yet he could manage figures, and write to dictation without being able to read what he had written. Associated with this defect was right lateral homonomous hemianopsia. After being under observation for nine years with but slight improvement, which was afterwards lost, he died, and a post-mortem by Drs. Macphail and Ferguson revealed Broca's convolution and left angular gyrus intact, though the latter was less well developed than its fellow. The posterior horn of the left lateral ventricle was widely dilated; the occipital pole was destroyed. This accounted for the right homonomous hemianopsia. The lesion included an area bounded internally by the calcarine fissure and externally by the third temporal convolution, and fibres connecting the left angular gyrus with the occipital poles. When the left angular gyrus is destroyed, the patient is both word blind and agraphic. In the second class, of which this case was an example, while the left angular gyrus is intact, yet a subcortical lesion, such as will divide the connexions between that gyrus and the occipital poles (calcarine fissures), will cause word blindness alone. Other cases are described, and then congenital word blindness is taken up. This appears to affect males most frequently, and sometimes to run in families, even assuming a hereditary form. One family is described. The boys find almost complete inability to learn to read the simplest words even with seven years' effort, yet pictures and figures present no difficulty. Their general intelligence is first-class, their mathematical achievements good their auditory word memory remarkable, and they learn to write readily and sometimes even to read music. They commonly hide their defect by committing their task to memory.

Coming to diagnosis, the author states that patients showing partial aberrations from the normal ability to read and especially those with concomitant defective development of other faculties, *i.e.*, mental defectives, must be rigidly excluded. As regards prognosis, he deprecates a pessimistic attitude. One of his patients, after years of failure, becoming an adept at football, took to spelling out, mouthing and writing word by word articles in the local newspaper relating to his achievements, and soon got to read fairly well. He commends this so-called "old-fashioned" method of appealing to the auditory word memory, glosso-kinæsthetic and writing centres, as immeasurably superior to the so-called "look and say" method, in which the word or a syllable is made the unit for visual memory instead of the individual letter. He likens it to Chinese script, where every idea has its own symbol. Lastly, the children should be taught by graduated exercises, exhaustion being avoided, and in separate classes, so as not to be discouraged by comparison with more normal companions. Quite good results have been obtained in these congenital cases, as compared with the difficulty experienced with patients with acquired lesions. If not too old, some of these patients could re-educate other paths or fellow-centres, although the effort is quickly exhausting. Therefore in the latter class a prolonged rest of 6 to 12 months should be given to the brain before attempting re-education. The book is highly interesting and should attract many purchasers.

[1] Congenital Word-Blindness, by James Hinshelwood, M.A., M.D., 1917. London: H. K. Lewis & Co., Ltd. Crown 8vo., pp. 112. Price, 4s. net.

## A NEW WAR JOURNAL.

The first number of *Ambulance de "L'Océan"-La Panne*, edited by Dr. A. Depage, with the assistance of Drs. A. P. Dustin and G. Debaisieux and dedicated to Her Majesty the Queen of Belgium, is destined to occupy an important place in the records of the French and Belgian Army Medical Services. There will be two parts each year during the continuance of the war. The first part is a volume of just over 300 pages, is excellently printed on good paper, with many first-class illustrations. It contains a preface, an article on the institution, the evolution and organization of the hospital by the Editor and thirteen articles on surgical, neurological, orthopædic and bacteriological subjects connected with the work conducted in the establishment. The journal is published in Paris by Messrs. Masson and Company, and reflects great credit on them.

It appears that in November, 1914, Dr. Depage was about to establish a military hospital, "*Jeanne-d'Arc*," at Calais with the funds placed for this purpose at his disposal by the Belgian Red Cross Society. Queen Elizabeth paid a visit to this hospital and suggested to Dr. Depage that a large hospital should be founded closer to the front in Belgian territory. At that time the only military hospitals in Belgium were the "Belgian Field Hospital," an institution established and equipped with English money and English workmanship, and a somewhat defective surgical hospital at Furnes. Her Majesty wished to place this new hospital at La Panne, close to the firing line, in order that the wounded would not have long ambulance and train journeys before they could receive skilled surgical and medical attention. La Panne is situated 10 kilometres south-west of Nieuport and a little farther from the trenches. It is a seaside village, and is the last Belgian village in the direction of the French frontier. The Countess of Spoelbergh placed *l'Hôtel de l'Océan* at Depage's disposal for the purpose of making a start. Within three weeks the hotel had been transformed into an up-to-date general hospital. In the course of a year numerous surrounding villas and other structures were utilized for sundry departments; pavilions were built either as semi-permanent edifices or as huts capable of being taken asunder and set up in a fresh site; a central heating plant, a thorough system of sewerage and a good water supply were installed; in short a great hospital with a thousand beds and every desirable department, had sprung up. The British Pavilion with 100 beds owed its existence to the generosity of our people at home. An Edinburgh society raised sufficient money to establish a pavilion with 250 beds—"*Pavillon Everyman*." An American pavilion with 60 beds in two wards, a room for neurological examination, a complete installation of physio-therapeutic apparatus, and several special consultation rooms was also the result of subscribed funds. At first there were only 200 beds, but the added pavilions were established during the course of 1915. On December 20, 1914, the first patients were admitted.

In the organization of the hospital it was determined that the institution should be large and self-contained. Each department was placed under the direction of a competent head. The sole responsibility for the hospital was vested in the Medical Director. Strict economy was exercised from the first in regard to administrative matters and the administrative block was planned with this end in view. Only surgeons and physicians of recognized capabilities were chosen to look after the wounded and sick soldiers. The hospital was so organized that medical men could benefit by the practice and keep themselves up-to-date by visiting the wards and laboratories. Meetings of various medical societies were held within its walls. Everything was done to insure the comfort of the patients, but all suggestions of luxury were avoided. The patients and the staff were given means of enjoying healthy recreation, and the whole place was made as attractive and bright as the surroundings permitted. In the course of time an advance station was established in connexion with this hospital, and a farm was secured at some distance from the main buildings.

The journal has been founded to record the work undertaken in this excellent hospital and to provide a means for preserving the ideas evolved during the observations in the wards, in the special departments and in the research laboratories. We hope to have many opportunities of publishing summaries of articles appearing in the journal.

## Vital Statistics.

### SYDNEY.

The vital statistics of the metropolitan district of Sydney for the months of August and September have been published in the Government Gazette. The number of births registered in August was 1,793, and in September 1,645. Both figures are below the average for the previous five years. The birth-rate in August was equivalent to an annual birth-rate of 28.14, as compared with an average for the corresponding month of 29.38. It was 25.82 in September, as compared with 28.15. The illegitimate births numbered 128 in August and 100 in September. This is equivalent to an annual illegitimate birth-rate of 2.01 and 1.57 respectively. The average for both months is slightly higher. In August 24%, and in September 23% of the total number of births took place in hospitals and other public institutions.

There were 654 deaths registered in August, and 573 in September. The equivalent death-rates are 10.26 and 8.99. The former is 15% and the latter 21% below the average for the corresponding month of the preceding five years. The infantile mortality in August works out at 52.4 per 1000 births, and in September 49.2. The infantile mortality for August is the lowest ever recorded in this month, and that for September is 25% below the average for the month. One person aged 100 years died in August, and one aged 102 in September. The proportion of deaths in hospitals and other public institutions was 41 and 42% respectively of the total number. From the summary published, the reader obtains the impression that diseases of the heart and of the vessels represent but a small proportion of the total number of deaths. Closer study of the classification, however, reveals the misleading nature of the classification adopted. There were 78 deaths from chronic valvular disease of the heart, five from acute endocarditis and one from angina pectoris, 13 from atheroma, etc., four from embolism and thrombosis, 32 from cerebral hæmorrhage, 50 from Bright's disease, seven from cirrhosis of the liver, one from pulmonary congestion, in addition to deaths from other affections in which the primary lesion is situated in the vessels. It may, therefore, be stated that in August there were 192 deaths due to noxes which affect primarily the cardio-vascular system. The figures for September are slightly lower. Pulmonary tuberculosis killed 38 persons in August and 25 in September, while diarrhœa and enteritis killed 16 in August and 18 in September. There were 54 deaths from pneumonia in August and 45 in September. The other infective processes were responsible for fewer deaths, aggregating 30 for August.

### SOUTH AUSTRALIA.

The returns of the vital statistics for the month of September, issued by the Chief Secretary in South Australia, contain the following information. There were 1,017 births registered during the month. This figure is just higher than the average for the corresponding month of the preceding five years. The birth-rate, expressed as an annual rate, was 28.32 per 1000 of population. The rates for the corresponding month of the preceding five years were 28.56, 29.28, 28.92, 25.92, and 27.48. The total number of births registered in South Australia during the first, second and third quarters was 8,765. The birth-rate is, therefore, equivalent to an annual birth-rate of 27.05.

There were 375 deaths registered during the month, which brings the total for the year up to 3,324. The equivalent death-rate was therefore 10.44 per 1000. It was higher in September of 1915 and 1916, and lower in September, 1912, 1913 and 1914. The lowest rate was in 1914, viz., 9.96. The rate during the first, second and third quarters was equivalent to an annual rate of 10.25. Of the 375 persons who died, 45 were infants under one year of age. Infantile mortality was 44.24 per 1000 births. There were 119 deaths of persons between 60 and 80 years of age, and 41 of persons of 80 or over.

In regard to the causes of death, it appears that 77 were caused by diseases of the cardio-vascular system, including 52 from organic diseases of the heart and 24 from cerebral hæmorrhage. There were 22 deaths from Bright's disease. Infective conditions caused 76 deaths. There were 35 deaths from tuberculosis, 20 from pneumonia, six from diphtheria, two from diarrhœa and enteritis, three from acute rheumatism, two from acute nephritis, two from dysentery and one each from enteric fever, pertussis, influenza, meningitis, acute endocarditis and puerperal septicæmia. There were 36 deaths from malignant disease and seven from diabetes.

The returns for the city of Adelaide reveal that 77 births were registered in the city, which is equivalent to an annual birth-rate of 23.28 per 1000 of population. There were 85 deaths registered. Of these, 30 were of persons who died in public institutions, but who were not usually resident in the city. The corrected death-rate is, therefore, equivalent to an annual rate of 17.28. The death-rate was highest in MacDonnell and lowest in Grey.

The Medical Journal of Australia.

SATURDAY, NOVEMBER 24, 1917.

## Pseudo Conscription or Compulsory Enrolment.

The medical profession in Australia declared by a majority of 1011 to 350 on July 16, 1917, that they favoured the introduction of legislation "to bring about compulsory enlistment of the medical profession in Australia for service in the Australian Imperial Force, including service overseas." No action has yet been taken to communicate this decision of a great majority to the Federal Government, because the majority represented 74.28% of those voting, instead of 75%. It will be remembered that the Federal Committee of the Branches of the British Medical Association in Australia instructed its Chairman to convey the decision of the members, if three-quarters of those voting and a bare majority of the Branches cast their votes in favour. The second condition was fulfilled; every Branch registered a substantial majority in favour of the proposal. The first condition was not literally fulfilled, although the margin was so small, that it was practically fulfilled. The Federal Committee fixed the condition as a guide to its Chairman. It has the power to instruct its Chairman to take the action then determined upon and to reveal to the proper authorities the demands of the vast majority of the members of the British Medical Association. We understand that steps are being taken to bring this about.

In the meantime the Prime Minister has determined to apply the referendum to the community again, not on the question of universal military service, but on a form of pseudo-conscription, whereby the monthly quota of reinforcements of the five Australian divisions on active service may be maintained. There is a definite, and we venture to think, a very unwise promise that the number of troops to be enlisted each month in the Commonwealth shall not exceed 7000. Exemption from enlistment is to be granted to too many persons and for reasons which are too vague. If the result of this new referendum be a reversal of the former one, Australia will still not have done its utmost to help the British Empire at a time when every man and all its resources must be of the greatest avail. We have no doubt regarding the manner in which the medical profession will vote. The half loaf must be regarded as better than no bread at all. But we are equally convinced that the medical profession will not be satisfied with this partial measure.

In New Zealand the medical profession demanded a general mobilization of its members, after the introduction of a selective conscription. The Federal Committee has a mandate from three-quarters of those who took the trouble to register their views (we neglect the 0.73% deficiency in making a general statement), to demand for the medical profession in Australia compulsory enrolment of every member, in order that the services of each man and woman in the profession may be utilized in the best way possible for the Empire and for the community. No honourable man can be satisfied to leave the hard, risky work to his colleague. Every member of the medical profession has a duty to perform. His duty lies in doing anything that is desired of him, in going to any place where his knowledge and skill may be of use, and in forgetting his individual interests and sacrificing his comforts for the benefit of his King and country. The remainder of the community may be satisfied to accept the provisions of Mr. Hughes's pseudo-conscription scheme. The medical profession will wish to share as equally as possible the burden and the privileges of taking an active part in assisting the Empire. Some may be kept to work within the Commonwealth, either among the soldiers in camp or among the civil population. Others will be required to go abroad, either to the firing line or to some base hospital. There are enough medical practitioners to perform the necessary work properly, if careful management be exercised. That careful management must be entrusted to representative Committees, in whom the power of selection must be vested.

H. W. ARMIT, 30-34 Elizabeth St., Sydney.

### THE ÆTIOLOGY OF ECLAMPSIA.

The timely article on the toxæmias of pregnancy by Dr. J. A. G. Hamilton, of Adelaide, cannot fail

equivalent to an annual illegitimate birth-rate of 2.01 and rate was highest in MacDonnell and lowest in Grey.



to attract the attention which this serious subject demands at the hands of the medical profession. Dr. Hamilton is to be congratulated for having urged his colleagues to be on the watch for symptoms and signs of those conditions with which he deals and to be prepared to apply means to check their development at the outset in every case. More than that, he advocates in plain language the adoption of preventive measures, which may have the effect of sparing the mothers of Australia much suffering and at the same time saving them and their valuable offsprings from danger and death. The most important of these so-called toxæmias, because of its relative frequency, is eclampsia. Dr. Hamilton, the famous Dublin obstetricians whose opinions he passes under review and Sir John Byers, who has also dealt with this subject recently, all endeavour to establish a sound practice while they admit, tacitly or in words, that the true nature of the condition is still shrouded in mystery. Treatment which is not based on a definite knowledge of the pathology and ætiology of the condition, is unlikely to be firmly established, and we venture to express the opinion that the reason why there is divergence of opinion between our Adelaide obstetrician and the obstetricians of the Rotunda Hospital, is dependent on this. Recent researches, however, have brought to light certain facts in this connexion, which should not be ignored. These facts can be utilized in the preventive and curative treatment of eclampsia. More knowledge is necessary before a full understanding of the condition is obtained, but until more is known, we must recognize which facts have a distinct bearing on the production of this form of toxæmia. It has long been held that the seizures in eclampsia are due to a poison developed either in the fœtal structure in the uterus or in the altered physiology of the mother. At the time when the anaphylactic reaction engaged the attention of physicians to a large extent, a hazard was made that the absorption of fœtal protein gave rise to an anaphylaxis in the mother. No facts were adduced in support of this theory, save the one that the eclamptic fit was similar in appearance to the convulsive condition of anaphylaxis. This and other suggestions stimulated physiologists to ascertain whether the blood and the urine in this condition did not reveal a distinctive change from the normal. It has been ascertained by several observers that the amino-acid nitrogen of the blood in the pre-eclamptic state and during eclampsia is not raised from the normal value. On the other hand, Arthur Morse has determined that in an obscure toxæmia, probably related to acute yellow atrophy of the liver, the amino-acids are present in the blood in excess. In the next place much elaborate work has been conducted regarding the ammonia coefficient of the urine in hyperemesis and eclampsia. Leith Murray points out that even in normal pregnancy an excessive proportion of nitrogen is excreted in the urine as ammonia. He denies that this excess of ammonia nitrogen is a measure of acidosis, but states that there is every reason to assign a part of the ammonia to histological changes occurring in the liver. In hyperemesis there is an increased ammonia coefficient, associated with a necrotic lesion in the liver. In eclampsia the focal lesion in the liver, albeit massive, is usually too sudden and too short-lived to lead to degenerative changes, and consequently high ammonia values are not met with. He has determined, and others have confirmed this finding, that in eclampsia there is a distinct rise in the acid coefficient in many cases. The acidosis was measured partly by the estimation of the depletion of the fixed bases and partly by the direct estimation of the acetone bodies. Others have attacked the acidosis basis of eclampsia from a different stanpoint. According to Martin H. Fischer, all forms of nephritis and renal disturbances, whether connected with pregnancy or not, are produced by the action of acid on the kidney tissue. He has a mass of experimental evidence to prove that the effect of an increased concentration of acid acts on the protein of the parenchyma cells of the kidneys, changing the condition from a solid or gel colloid to one of dissolved suspensoids or sol state. The colloid in the sol state is capable of passing out in the urine in the form of albumin. He traces the acid giving rise to this change to the muscles and other tissue. It is well known that over-activity of a muscle is followed by the production of lactic acid, which under adverse circumstances may accumulate in the blood and tissues. He essays to show that the blood and tissues are normally neither alkaline nor acid, and that the acidity of the normal urine is

relatively slight, when measured as hydrogen ion concentration. In nephritic conditions the hydrogen ion concentration increases very materially and may assume considerable proportions. While this explanation of the ascertained facts probably holds good for both acute parenchymatous nephritis and chronic interstitial nephritis, it is not quite easy to accept it in its entirety in connexion with eclampsia. If the production of lactic acid is sufficient to call forth an anuria and a violent disturbance of the higher nerve centres, the acid content of the blood and urine should suffice to create a wide-spread change of the renal protein from the gel into the sol state. This would, of necessity, lead to a pronounced albuminuria, which is not always met with in eclampsia. A single case of true eclampsia with relatively little albumin in the urine might invalidate the acidosis explanation, as given by Fischer. His contentions, however, are fully supported by experimental evidence and are so complete, as far as the manifest signs and symptoms of nephritis are concerned, that we are probably not justified in rejecting it, in the absence of some definite proof of its fallacy. This proof is wanting.

## ACCLIMATIZATION TO THE TROPICAL SUN.

Great difficulty has been experienced in stating with accuracy the effect of climatic conditions on the human body. People say that some particular weather is oppressive or unpleasant, though individuals vary in their susceptibility to warm surroundings. What physiological phenomena accompany the unpleasant sensations felt by many persons, has not yet been ascertained with certainty. The temperature of the human body, as usually measured, is no guide to the occurrence of these sensations, though it may be that more attention to the changes in temperature of each individual would lead to the discovery of some physiological response to tropical conditions of the weather. Observations on the warmth of the skin, as well as the on the heat of the blood, appear to be needed, as the temperature of the skin is concerned with the regulations of the thermal mechanism of the organism. In some circumstances the temperature of the body rises, and this elevation of temperature may be used as an index of the effects of meteorological factors. In this way notice may be obtained of the onset of conditions dangerous to life. Use has been made of this fact by A. O. Shaklee, who has investigated the production of acclimatization[1] to the tropical sun of the Philippine Islands. He has studied experimentally the effect of exposing monkeys and rabbits to the sun and has supplemented his results with observations upon man.

The native monkeys placed on a roof or on the ground in the sun at Manilla do not live more than six hours and some die in little more than one hour. Monkeys in the shade show only a slight elevation of temperature, though the temperature of the air may be higher and the humidity of the air greater than those observed in the neighbourhood of the monkeys killed by insolation. These experiments suggested that the direct rays of the sun led to the fatal action on the monkeys and that the measurements of the black bulb thermometer indicated the harmful influence of the sun. It has, however, been discovered that monkeys survive in the sun, if they are placed one metre or more above the ground. At first, the temperature of the monkey rises about 2° C. during the day, but this elevation is much diminished with successive exposure. It would, therefore, appear that radiation from the hot ground supplements the heating of the monkeys by the direct rays of the sun. When a monkey has been placed in the sun above the ground daily for three weeks, it can be put on the ground with safety. The temperature of the body rises, but not to a fatal temperature. If the period of acclimatization to the sun is prolonged for some months, the monkeys show less variation in the range of temperature, when placed on the ground, or on a blackened roof. It has been noted that diet influences the acclimatization of monkeys, and that the process is assisted by a daily light ration of 50 grammes of a mixture of equal parts of boiled white rice and raw ripe bananas per kilogramme of body weight.

It has been noticed that the acclimatized monkeys sweat more than the monkeys that have not been rendered resistant. Beads of perspiration can be detected on the heads and backs of the monkeys, when they are placed on the hot ground. It has also been noted that the temperature of the acclimatized monkeys is higher, when the relative humidity of the air is greater. The development of an increased capacity for sweating seems to account for the heightened resistance to the sun's heat. This hypothesis is supported by the observation that a small dose of atropine sufficient to prevent sweating, abolishes the resistance induced by repeated exposure to the sun. After atropine the temperature of the acclimatized monkey placed on the ground, rises and the monkey will die, if not taken out of the sun. All attempts to make rabbits resistant have failed, and this failure may be correlated with the absence of perspiration in the rabbit.

Since a moderate ability to sweat and a light suitable diet suffice to render monkeys immune to the tropical sun, it would appear that man should be readily acclimatized to the same conditions. The sweating mechanism in man has many times the capacity of that of a monkey. As the temperature of the air approaches that of the body, evaporation becomes the most important means for eliminating heat from the body. A light diet means less production of heat. By proper clothing and diet a man will soon adapt himself to tropical climate.

[1] *Philippine Journal of Science*, Vol. xii., p. 1, January, 1917.

condition did not reveal a distinctive change from ' acid, and that the acidity of the normal urine is



# Abstracts from Current Medical Literature.

## DERMATOLOGY.

### (181) Gonorrhœal Keratosis.

Herbert Brown and H. Hargreaves (*British Journ. Dermatol. and Syphilis*, April-June, 1917) record a case of gonorrhœal keratosis in a man, aged 30 years. The authors call attention to the fact that marked keratosis is a very rare condition, only six cases having been recorded in British literature. There was a history of two previous attacks of gonorrhœa, one seven years and the other three years before. These attacks were cured in about six weeks, without complications, with potassium permanganate irrigations, and copaiba internally. In August, 1916, the patient had a third attack. He was admitted to hospital a few days later with a purulent urethral discharge, a temperature of 37.8° C., and rheumatic pains. Both knee-joints were swollen and tender, and five days after admission were tapped on account of marked effusion, 165 c.cm. and 135 c.cm. of serous fluid respectively being withdrawn. This procedure had to be repeated twice within the following ten days, but the examination of the fluid withdrawn disclosed no gonococci. Two weeks after admission there developed a generalized plantar keratosis over the pressure areas of the feet, with hard, horny, central areas forming slightly elevated domes. There was also some thickening on the plantar surfaces of the toes. The present case bears a striking resemblance to other recorded cases, in the fact that there was marked arthritis with effusion, and a history of previous attacks of gonorrhœa. The condition cleared up under treatment, consisting of daily irrigation with 1 in 8,000, potassium permanganate, together with a mixed gonococcal and staphylococcal vaccine. A moderate degree of prostatitis existed, for which massage was given every second day, with hot hip baths daily. Under this treatment the prostatitis gradually subsided, Hargreaves being of opinion that the improvement of both the arthritis and the keratosis was more rapid when the prostatitis subsided, and this focus of infection was removed.

### (182) A Case of Xanthoma Tuberosum Multiplex.

A case of *Xanthoma tuberosum multiplex*, occurring in a Russian, a female, aged 66 years, is reported by Parkes Weber (*Proc. Royal Society Medicine*, July, 1917). The eruption first appeared insidiously eight year before, and although present on the trunk and face to a slight extent, it involved as sites of predilection the legs below the knees, as well as the olecranon region of the upper extremities. The greater number of the nodules were situated in the corium, but some appeared to be more deeply placed in the subcutaneous tissue. The epidermis was movable over the latter. The skin was but little pigmented. The nodules were in parts grouped together in clusters, with cutaneous pigmentation between and about, as well as over them. They varied in size, and for the most part were yellowish-brown, or reddish-brown in colour, but in a few the reddish tint was more pronounced than the brown. The Wassermann reaction was negative and the urine was free from albumin and sugar. A raised brown superficial nodule in the skin, of about the size of a pea, and a deeper rather larger nodule, situated chiefly in the subcutaneous tissue, with the skin movable over it and not pigmented, were removed for microscoptical examination. Sections were stained with hæmotoxylin and eosin, and also by the Unna-Pappenheim method for plasma cells. The structure of the nodules was found to be identical, and to consist of fibroblasts, together with lymphocytes and plasma cells.

### (183) Röentgen Ray Treatment of Acne Vulgaris.

H. H. Hazen (*Journ. Amer. Med. Assoc.*, September, 1917) describes the effect of Röentgen ray treatment in a series of 34 cases of *acne vulgaris*. He describes his technique, the most noticeable feature of which is the absence of filtration. In addition, he insists on the importance of prescribing a suitable diet at the same time. No other form of treatment was given, except a weak sulpher ointment. The results were, in nearly all cases, either a cure or a very great improvement. He lays stress on the importance of protecting the hair, eyebrows, etc., and that of not over-dosing.

### (184) Malignant Disease of the Throat and Sinuses.

H. K. Pancoast (*Journ. Amer. Med. Assoc.*, September, 1917) discusses the result obtained by large doses of radium in cases of which the method of treatment was by radium and X-rays. He hold that in large areas, especially on the surface, X-rays are more suitable as a therapeutic agent, but in a smaller area, radium. He gives a detailed account of many cases of carcinoma and sarcoma, involving the throat and sinuses, treated by radium. In the treatment of inoperable malignant growths in the mouth, ear, etc., radium is an extremely valuable adjunct, because it can be applied directly to the growth which is more or less inaccessible to direct Röentgen ray exposure. The growth should be treated in all directions, by cross-firing either by X-rays or radium. If the radium is implanted into the sarcomatous tissue, very little sloughing occurs, when the response of the growth to its action is rapid. Large doses should be given in order to cause the most rapid diminution in the growth and to lessen the possibility in metastasis. Sarcomata respond more readily than carcinomata.

### (185) Radium Treatment of Cancer.

William Duane and Robert B. Greenough submit a report of 1,080 cases of cancer treated at the Collis P. Huntington Memorial Hospital in 1913, 1914 and 1915 (*Boston Med. and Surg. Journ.*, September, 1917). The amount of radium available was 235 milligrammes. The classification of all the types and conditions treated is drawn up in tabulated form. The conclusions reached are as follows:—In many cases of advanced, inoperable or recurrent carcinoma, benefit can be received by radium treatment. This relief includes diminution of pain and of discharge, of hæmorrhage and in the size of the tumour mass and an improvement of the general condition. In some cases the improvement may be sufficient to allow of a radical operation. Certain cases of superficial cancers, without tending to the formation of metastases, and a smaller number of malignant growths leading to metastasis may be destroyed by radium. A sufficient time has not elapsed to determine whether the "cure" is permanent. Certain superficial conditions, keratoses, papilloma and other conditions, regarded as 'pre-cancerous," may be cleared up by radium. Certain blood conditions are benefited, such as myelogenous leukæmia. Others, however, show very little result. Hodgkins's disease, lympho-sarcoma, and malignant lymphoma are very sensitive to radiation and definite, though temporary, benefit is obtained. Radium therapy has proved of little benefit to recurrent carcinoma of the breast. In carcinoma of the stomach, intestine, of the glands of the neck, etc., the use of radium in prophylaxis of recurrence after operation is not advised.

## BIOLOGICAL CHEMISTRY.

### (186) Fatty Acids from Milk.

C. Crowther and A. Hynd have attempted to separate the different fatty acids obtained from the milk fat of the cow and sheep (*Biochem. Journ.*, August, 1917). The only acids, present in butter fat in more than minimal proportions, are the unsaturated acid, oleic acid, and the eight saturated acids of the acetic series containing an even number of carbon atoms, *viz.*, butyric, caproic, caprylic, capric, lauric, myristic, palmitic and stearic acids. The authors have converted a weighed amount of butter fat into methyl esters by heating an ethereal solution of fat with excess of methyl alcohol in the presence of a small quantity of hydrochloric acid. The mixed esters have been isolated from the reaction mixture and subjected to fractional distillation. In this way the methyl esters have been separated into ten fractions with ascending boiling points. Each fraction has been assumed to consist of two saturated esters and of methyl oleate. From the iodine absorption value and from the saponification figure the weight of each ester present can be calculated in each fraction. The total loss by the process amounted on the average to less than 1% of the weight of fat taken. The results of this method have been tested by making a mixture of pure fatty acids of approximately the same composition as

butter and subjecting it to analysis in a similar manner. The calculated and analytical results agreed well. Some attention has been given to the accuracy of the assumption that oleic acid is the only unsaturated acid present in butter. No decylenic acid can be isolated from butter fat. This method has been applied to determine the composition of the fat of dairy butter and of the fat of the "first runings" and of the "strippings" of the same cows. Two analyses have been made of the fat from ewe's milk. The figures obtained from these analyses show that the fat of cow's milk contains about 45% by weight of oleic acid, 20% myristic acid, 15% palmitic acid and less than 5% stearic acid. The fat of the "first runnings" contains about 9% by weight less myristic acid and 6% more palmitic acid, and 3% more stearic acid than that of the "strippings." The "first runnings" are also richer in oleic acid than the "strippings." The authors found a considerable amount of lauric acid in butter, so that they conclude that the accepted idea that a pound of butter fat contains so little lauric acid that it cannot be isolated, must be modified. The small amount of stearic acid with the high percentage of soluble fatty acids differentiates butter from other animal fats. The fat of sheep's milk does not vary so widely in composition as the fat of cow's milk, from which it differs mainly in the higher percentages for lower fatty acids. The five lower fatty acids of cow's milk constitute 13% of the weight of the fat, while the five lower fatty acids make up 19% of the fat of ewe's milk. The excess is present as butyric, caprylic and capric acids. The amount of oleic acid in the fat of sheep's milk is about 40%, of palmitic and myristic acids about 13%, and of stearic acid about 4% of the weight of fat.

### (187) Estimation of Fats and Soaps in Fæces.

J. S. Sharpe has devised a rapid and accurate method for the determination of the quantity of fats in fæces (*Biochem. Journ.*, August, 1917). The need of a clinical method permitting estimations to be carried out sufficiently quickly to allow of the regulation of the diet of patients, has been often mentioned by investigators. The author tried different staining methods and the acid amyl alcohol method employed on milk, without success. Finally he used a dilute solution of alcoholic potash by which the fats are dissolved after saponification from the fæces. The fatty acids are liberated from the filtered and diluted solution by hydrochloric acid. The estimation is made by comparing the turbidity of the liquid containing the precipitated fatty acids, with the turbidity of a standard solution of fatty acids saponified in the same way. The comparison is made by means of a nephelometer. This method of estimation has the advantage that all the fatty material is extracted, whether combined as neutral fats, fatty acids or soaps. The resulting figure represents the quantity of total fatty acids. Slight modifications are described for measuring the amount of soluble or insoluble soaps separately from the total fatty acids. In the course of this investigation the author has arrived at the conclusion that fæces contain little neutral fat, most of the fatty acid being present free or as soaps.

### (188) The Production of Acidosis.

R. M. Wilder has injected the sodium salt of β-hydroxybutyric acid in 2% or 3% solution intravenously into well-nourished resting dogs at selected rates, maintained uniformly for periods of two hours (*Journ. Biol. Chemistry*, July, 1917). With injections at the rate of 0.3 gm. per kilo. of body weight per hour, no optically active hydroxybutyric acid could be found in the urine. With the injection of 0.4 gm. per kilo. per hour, a trace of β-hydroxybutyric acid appeared in the urine. With an injection of 0.5 gm. per kilo. per hour, 50 milligrammes of β-hydroxybutyric acid were recovered from the urine during the two hours of the experiment. Negative results were given by the urine for acetone and aceto-acetic acid in all cases. These experiments indicate a normal intravenous toleration of β-hydroxybutyric acid at or about 0.4 gm. per kilo. of body weight per hour. The appearance of the acid in the urine may be taken to indicate that the rate of entry of the acid into the blood is greater than this value, provided that the power of the organism to utilize the acid is not diminished. Similar experiments were performed with aceto-acetic acid in the form of the sodium salt. Injections at the rate of 0.1 gm. per kilo. per hour caused no excretion of acetone, diacetic acid or β-hydroxybutyric acid. With injections of 0.2 gm. per kilo. per hour, acetone and diacetic acid could be found in the urine, but no β-hydroxybutyric acid. With 0.4 gm. aceto-acetic acid per kilo. per hour, a trace of β-hydroxybutyric acid appeared in the urine, while, with 0.5 gm. per kilo., 41 mg. β-hydroxybutyric acid were recovered from the urine during the period of the experiment. With higher injections of diacetic acid, proportionately greater amounts of β-hydroxybutyric acid were obtained from the urine. In these experiments, β-hydroxybutyric acid appeared in the urine when aceto-acetic acid was introduced into the venous blood at a rate corresponding to that which gives rise to the excretion of the same acid when β-hydroxybutyric acid is injected into the blood stream. It would therefore appear that aceto-acetic acid is converted quantitatively into β-hydroxybutyric acid at a velocity not less than that of the speed of injection. If this be not the case, the rate of formation of β-hydroxybutyric acid would not suffice to overstep the limit of toleration for this substance. Two objections can be urged against this conclusion. Both acetone and aceto-acetic acid appear in the urine after the injection of diacetic acid. The amounts of these substances excreted are too small, however, to interfere with the validity of the inference. The excretion of β-hydroxybutyric acid after the injection of aceto-acetic acid may be due to a diminution in the rate of utilization of endogenous β-hydroxybutyric acid, or to an increased supply of the endogenous acid. This possibility has not been excluded. The failure of injections of less than 0.4 gm. aceto-acetic acid per kilo. per hour to lead to any excretion of β-hydroxybutyric acid suggests that this possibility is unlikely. The experiments afford no evidence of any oxidation of aceto-acetic acid to β-hydroxybutyric acid. They demonstrate that, with injections up to 0.5 gm. per kilo. per hour, less than 40% at most of the hydroxy acid could be oxidized to diacetic acid.

### (189) Estimation of Glycosuria.

A. Hiller has proposed a rapid, accurate method for determining small amounts of glucose in the urine (*Journ. Biol. Chemistry*, May, 1917). Ten cubic centimetres of urine are mixed with 2 gm. picric acid and 2 gm. bone black. After five minutes the mixture is filtered. Two cubic centimetres of the filtrate is diluted to 25 c.cm. in a volumetric flask. Eight cubic centimetres of the diluted filtrate are mixed with 2 c.cm. saturated aqueous solution of picric acid and exactly 1 c.cm. 10% aqueous sodium carbonate solution. After heating a special way the volume is made up to 10 c.cm. and the colour of the liquid compared with that of a standard solution of picramic acid in a colorimeter. Tables are appended to demonstrate the accuracy of this method.

### (190) Urea Formation in Muscle.

R. Hoagland and C. M. Mansfield have made some experiments to ascertain whether or not enzymes forming urea are present in muscular tissue (*Journ. Biol. Chemistry*, September, 1917). It is usually held that the formation of urea is a function of body cells in general. This idea is founded upon the supposition that the metabolism of the individual cell is complete in itself. When the muscular tissue of an ox is incubated under aseptic conditions at 37° C. for a period of 100 days, the quantity of free amino-acid present is increased sevenfold. The amount of ammonia is increased five times in the same period. At the close of the incubation the amino-acids and ammonia contain one-fifth of the total nitrogen of the tissue. Estimations of the amount of urea in the muscle by the urease method show that urea is formed only slowly during aseptic incubation, despite the great accumulation in the muscle of the precursors of urea. The rate of urea-formation is so slow that the amount of urea in incubated muscle can be considered as practically constant during the period of incubation. Enzymes concerned with the formation of urea do not, therefore, appear to be present in muscle except in traces. The results of these experiments support the view that the formation of urea is chiefly a function of the liver.

# British Medical Association News.

## MEDICO-POLITICAL.

At a meeting of the Council of the Victorian Branch, held in Melbourne on November 15, 1917, the following resolution was adopted unanimously:—

In view of the gravity of the present international position, and the danger with which Australia, in common with the rest of the Empire, is threatened, and of the possibility of a period of German domination, the Council of the Victorian Branch of the British Medical Association urges upon its members the necessity of supporting the call to universal service.

The following have been nominated for election as members of the New South Wales Branch:—

Eric Mortley Fisher, M.B., 1913 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Eric Preston Holland, M.B., 1917 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Robert Murrell Allport, M.B., 1917 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

# Naval and Military.

## CASUALTIES.

It is with deep regret that we have to announce the death on active service of Lieutenant-Colonel William Weston Hearne, who was recently decorated by the King of Italy, and of Major Norman John Bullen.

In the 353rd list of casualties it is recorded that Captain Eric John Kerr has been killed in action. We have already announced the death of this brave officer in our issue of November 10, 1917. The only casualty sustained by an officer of the Australian Army Medical Corps included in the 352nd list, which was issued on November 15, is that of Captain Arthur John De Size Howard, who has been wounded (see *The Medical Journal of Australia*, November 17, 1917, page 416). No medical officer is mentioned in the 354th list, which was issued on November 19, 1917.

## HONOURS.

In the *Commonwealth of Australia Gazette*, No. 189, of November 8, 1917, various abstracts from the *London Gazette* relative to the award of military honours, are published.

His Majesty the King has been graciously pleased to approve of the appointments of the undermentioned Officers to be Companions of the Distinguished Service Order in recognition of their gallantry and devotion to duty in the Field:—

Major Lionel Wilfred Bond, A.M.C.

For conspicuous bravery and devotion to duty. When in charge of advanced collecting and forwarding posts, his total disregard of danger under a terrific hail of gas shells, high explosives, and shrapnel fire, gained him the confidence of all ranks, and greatly assisted the evacuation of the wounded. Later, although wounded and partly gassed, he refused to leave his post, and his bravery and devotion saved a very critical situation.

Major Herbert Percival Brownell, A.M.C.

For conspicuous gallantry and devotion to duty whilst attending to the wounded under heavy fire. His coolness in organizing matters amidst the greatest confusion enabled the wounded to be expeditiously treated, and he personally treated some hundreds of cases under heavy shell fire.

Major Horatio Victor Patrick Conrick, A.M.C.

For conspicuous gallantry and devotion to duty in attending to the wounded. He proceeded to the scene of an explosion under very heavy shell fire, and personally directed the removal of the wounded. His fearlessness and disregard for his personal safety has been marked on all occasions.

His Majesty the King has been graciously pleased to award a Bar to the Military Cross to the undermentioned officers:—

. . . . . .

Captain George Seabourne Robinson, M.C., A.M.C.

For conspicuous gallantry and devotion to duty. He displayed great courage and determination in attending wounded under heavy fire. On one occasion he personally led a party out in front of our line for the purpose of searching and attending the wounded not yet collected. (The award of the Military Cross appeared in the *London Gazette*, No. 30111, of 1917, republished in *Commonwealth of Australia Gazette*, No. 169, of 1917).

His Majesty the King has been graciously pleased to confer the Military Cross on the undermentioned officers in recognition of their gallantry and devotion to duty in the Field:—

Captain Charles Herbert Leedman, A.M.C.

For conspicuous gallantry and devotion. Although he and several of his staff were wounded by the heavy shelling of his post by the enemy, he continued, with the greatest gallantry, to attend the wounded, remaining at his post until it became untenable.

Captain Cyril Charles Minty, A.M.C.

For conspicuous gallantry and devotion to duty. He showed the greatest courage and fearlessness in attending wounded whilst exposed to heavy shell fire and gas fumes, and assisting to carry them to the collecting post. The stretcher-bearers had suffered severe casualties, and it was owing to his magnificent example that they maintained their courage and endurance.

The following names are added to the list of officers . . . recommended for distinguished and gallant services and devotion to duty in the despatch from the Field Marshall Commanding in Chief, the British Armies in France, dated 9th April, 1917:—

Captain (now Major) G. E. Cole, A.M.C.

## APPOINTMENTS.

The following appointments are published in the *Commonwealth of Australia Gazette*, No. 195, of November 15, 1917:—

To be Majors—

Honorary Major W. G. Forde, Australian Army Medical Corps Reserve. Dated 9th October, 1917.

Honorary Major T. Cherry, Australian Army Medical Corps Reserve. Dated 31st October, 1917.

To be Captains—

Captain N. L. Speirs, Australian Army Medical Corps. Dated 15th October, 1917.

Captain (provisional) B. G. Quinlan, Australian Army Medical Corps. Dated 16th October, 1917.

To be Lieutenant-Colonel—

Major J. M. Y. Stewart, No. 2 Field Ambulance, and to command No. 15 Field Ambulance. Dated 1st May, 1917.

To be Temporary Lieutenant-Colonel—

Major E. R. White, whilst commanding No. 2 Light Horse Field Ambulance. Dated 18th February, 1917.

Major (temporary Lieutenant-Colonel) A. L. Dawson relinquished appointment of Deputy Assistant Director Medical Services, Anzac Mounted Base and Head-quarters, Egypt, and is posted to temporarily command 1st Light Horse Field Ambulance, and to retain temporary rank of Lieutenant-Colonel whilst so employed. Dated 6th April, 1917.

The appointments of the undermentioned officers are terminated from dates stated opposite names:—

Lieutenant-Colonel H. R. C. Poate—10th November, 1917.

Major N. K. Robertson—29th October, 1917.

Major V. Benjafield—22nd October, 1917.

Major J. Sprent—12th November, 1917.

Captain C. Duguid—5th October, 1917.
Captain W. Smellie—10th October, 1917.
Captain J. A. Goldsmid—14th October, 1917.
Captain D. T. Keyes—22nd October, 1917.
Captain F. L. Nance—26th October, 1917.
Captain W. Fenwick—31st October, 1917.
Captain F. M. Purchas—10th November, 1917.
Honorary Captain W. H. A. Pye—25th October, 1917.

## AUSTRALIAN ARMY MEDICAL CORPS COMFORTS FUND.

We have the pleasant duty of thanking two further contributors for having responded to our appeal in aid of the Australian Army Medical Corps Comforts Fund. The success of an endeavour of this kind depends on a wide-spread publicity. *The Medical Journal of Australia* reaches all the medical practitioners in the Commonwealth, and a large number of official department and corporate institutions. While we recognize the limitation of the publicity which we can give to our appeals, we rely on the generosity of our own members to make up for this deficiency.

| | £ | s. | d. |
|---|---|---|---|
| Amount previously acknowledged .. .. | 107 | 8 | 0 |
| Mrs. A. M. Small (Geelong, Vic.) .. .. | 2 | 2 | 0 |
| Dr. E. W. Sutcliffe (Morwell, Vic.) .. | 2 | 2 | 0 |

# Public Health.

## THE HEALTH OF AUSTRALIA.

### Infective Diseases Notified in Australia during the Quarter ending June 30, 1917.

| | New South Wales. | | Victoria. | | Queensland. | | South Australia. | | Western Australia. | | Tasmania. | | Commonwealth. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases.[3] | Deaths. |
| Enteric Fever | 236 | 20 | 107 | 16 | 106 | 13 | 65 | 7 | 65 | 5 | 4 | 1 | 583 | 62 |
| Scarlatina | 780 | 10 | 547 | 8 | 212 | 1 | 81 | 0 | 85 | 0 | 6 | 0 | 1,711 | 19 |
| Diphtheria | 2,265 | 93 | 1,309 | 54 | 480 | 22 | 453 | 28 | 244 | 11 | 30 | 12 | 4,781 | 220 |
| Pulm'y Tuberculosis | [1]315 | 264 | 339 | 221 | 108 | 78 | 105 | 85 | 123 | 65 | 10 | 21 | — | 735[2] |
| C'bro-spinal Menin. | 54 | 16 | 48 | 24 | 58 | 24 | 15 | 5 | 14 | 4 | 3 | 2 | 192 | 75 |
| Poliomyelitis | 4 | 2 | 6 | 0 | 15 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 25 | 6 |
| Malaria | 2 | 1 | 0 | 0 | 59 | 5 | 0 | 0 | 4 | 0 | 0 | 0 | 65 | 7[2] |
| Puerperal Fever | — | 30 | — | 16 | 8 | 12 | 4 | 1 | — | 6 | 1 | 6 | — | 71 |
| Septicæmia | — | 20 | — | 16 | — | 2 | — | 2 | 7 | 0 | — | 1 | — | 41 |
| Bilharziosis | — | 0 | — | 0 | — | 0 | — | 0 | 5 | 0 | — | 0 | — | 0 |
| Morbilli | — | 1 | — | 1 | — | 2 | 43 | 0 | — | 0 | — | 0 | — | 4 |
| Pertussis | — | 27 | — | 9 | — | 5 | 104 | 7 | — | 2 | — | 0 | — | 50 |
| Ophth. Neonatroum | — | 0 | — | 0 | — | 0 | — | 0 | 2 | 0 | — | 0 | — | 0 |
| Erysipelas | — | 5 | — | 3 | 25 | 2 | 24 | 0 | 27 | 2 | — | 1 | — | 13 |
| Beri-Beri | — | 0 | — | 0 | — | 0 | — | 0 | 29 | 0 | — | 0 | — | 0 |
| Ankylostomiasis | — | 0 | — | 0 | 39 | 1 | — | 0 | — | 0 | — | 0 | — | 1 |
| Variola | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 |

[1] Notifiable only in portion of State.
[2] Including one death in Northern Territory.
[3] The total number of cases notified is not given of those diseases which are not notifiable in all the States.

## NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending November 10, 1917:—

| | Metropolitan Combined District. | | Hunter River Combined District. | | Rest of State. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | Cs. | Dths. | Cs. | Dths. | Cs. | Dths. | Cs. | Dths. |
| Enteric Fever | 7 | 0 | 0 | 0 | 13 | 1 | 20 | 1 |
| Scarlatina | 14 | 0 | 0 | 0 | 4 | 0 | 18 | 0 |
| Diphtheria | 37 | 2 | 3 | 0 | 13 | 2 | 53 | 4 |
| C'bro-Spl. Menin. | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| *Pul. Tuberculosis | 32 | 7 | 1 | 0 | 0 | 0 | 33 | 7 |

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

## VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending November 11, 1917:—

| | Metropolitan. | | Rest of State. | | Total. | |
|---|---|---|---|---|---|---|
| | Cs. | Dths. | Cs. | Dths. | Cs. | Dths. |
| Diphtheria | 50 | 2 | 24 | 1 | 74 | 3 |
| Scarlatina | 40 | 0 | 16 | 0 | 56 | 0 |
| Enteric Fever | 4 | 0 | 1 | 0 | 5 | 0 |
| Pulmonary Tuberculosis | 17 | 4 | 12 | 3 | 29 | 7 |
| C'bro-spinal Meningitis | 1 | — | 0 | — | 1 | — |

## QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending November 10, 1917:—

| Disease. | No. of Cases. |
|---|---|
| Diphtheria | 16 |
| Pulmonary Tuberculosis | 3 |
| Enteric Fever | 16 |
| Cerebro-spinal Meningitis | 1 |

## SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, during the week ending November 3, 1917:—

| | Adelaide. | | Rest of State. | | Totals. | |
|---|---|---|---|---|---|---|
| | Cs. | Dths. | Cs. | Dths. | Cs. | Dths. |
| Pulmonary Tuberculosis | 1 | 1 | 25 | 6 | 26 | 7 |
| Pertussis | 0 | 0 | 15 | 0 | 15 | 0 |
| Diphtheria | 1 | 0 | 9 | 0 | 10 | 0 |
| Scarlatina | 0 | 0 | 7 | 0 | 7 | 0 |
| Morbilli | 0 | 0 | 3 | 0 | 3 | 0 |
| Erysipelas | 2 | 0 | 2 | 0 | 4 | 0 |
| Favus | 0 | 0 | 1 | 0 | 1 | 0 |
| C'bo-Spl. Meningitis | 0 | 0 | 1 | 0 | 1 | 0 |
| Puerperal Fever | 0 | 0 | 0 | 1 | 0 | 1 |

### TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the fortnight ending November 10, 1917:—

| Disease. | Hobart. Cases. | Launceston. Cases. | Country. Cases. | Whole State. Cases. |
|---|---|---|---|---|
| Diphtheria | 1 | 2 | 10 | 13 |
| Pulmonary Tuberculosis | 0 | 1 | 5 | 6 |
| Ophthalm. Neonatorum | 0 | 2 | 0 | 2 |

## Obituary.

### FRANCIS BRAMALL METCALFE.

On October 6, 1917, Captain Frank Bramall Metcalfe died of shock. He had been wounded a short time before, and an operation had been performed in the endeavour to save his life.

Francis Bramall Metcalfe was born in Norfolk Island on August 29, 1893. He received his early education under the tuition of his father, the late Dr. P. H. Metcalfe, at the place of his birth. Later, he was sent to Sydney and completed his schooling at King's School, Parramatta. After matriculating, he entered the Medical School of the Sydney University. He was not in residence during his first year, but at the beginning of his second year he joined St. Paul's College, where he remained until he graduated in 1916. While at school, he was very popular, and from an early age commanded the respect of his comrades and teachers. He was one of the "Senior Boys" during the latter part of his school days. He was elected to the position of Senior Student and Chairman of Committees at St. Paul's College, and took an active part in all University undergraduate functions connected with sport, as well as those of a social nature. He was a capable student, and one who learnt with ease.

After graduating, he filled the resident appointment at the Children's Hospital, Brisbane, and proved himself a very valuable officer. When he enlisted in October of 1916 in the Australian Army Medical Corps, the members of the Honorary Staff recognized that the Hospital would suffer by his departure. We have no information concerning the events which took place during his period of active service. That he did his duty with an utter disregard for his own safety is evidenced by the manner of his death. He was always inclined to take a serious view of life, and was very reserved in his manner. To those who were his friends, and who could penetrate the veil of reserve, he was an excellent comrade and a loyal companion. His manliness compelled respect from all who came in contact with him. All those who knew him, were convinced that his professional career would be a successful one. The present generation of medical practitioners is much the poorer by his death. Our sympathies go out to his relatives and intimate friends, who, while mourning his loss, have recently received the painful news that his brother, Major James Beverley Metcalfe, has been wounded at the front.

## Special Correspondence.

(By our Special Correspondent.)

### CANADA LETTER.

**The Establishment of Permanent Military Hospital Units.**

In the *Times* (issue of May 21, 1917) a suggestion was made by Sir James Fowler that permanent military hospital units should be formed, which would draw their personnel from a particular university, medical school or place, and would take the name of that university, medical school or place. The suggestion meeting with the approval of the War Office, a Middlesex Hospital unit is now in process of mobilization. Such a scheme, naturally, would engender an *esprit de corps* which would not be possible in a unit composed of men from various universities, which, upon the cessation of war, would be broken up. The inherent advantages of such university units was recognized by Canada soon after the war broke out, and a number of military hospitals were mobilized, equipped and sent overseas by the universities. These units, however, have been known officially as No. 3 Canadian General (McGill), No. 7 Canadian General (Queen's), and so on. The suggestion that they should be known as McGill, Queen's, Toronto, Dalhousie, Laval, and so on, and should be given a permanent place in the medical services of the Empire, is one that meets with the emphatic approval of Canadians.

**Food Control.**

The use of beef, bacon and white bread has been restricted in public eating places by a recent Order-in-Council. Beef and bacon are not permitted to be served on Fridays, or at more than one meal a day, and substitutes for white bread must be provided at every meal at which the latter is served. In places where it is possible to obtain fresh vegetables, the use of canned goods is discouraged. In the prairie West, of course, canned vegetables have to be used. The use of wheat in the distillation or manufacture of alcohol, unless such alcohol is to be used for manufacturing or munition purposes, is forbidden, and any person who wishes to use wheat for the purpose of producing alcohol for manufacturing or munitions purposes must first obtain a license from the Food Controller.

## Correspondence.

### THE LODGE QUESTION IN VICTORIA.

Sir,—I am instructed by the Council of the Victorian Branch of the British Medical Association to issue the following statement concerning the relations existing between my Association and the Association of the Friendly Societies of Victoria. We recognize that we owe such a statement to the public, to the members of the Friendly Societies, and to ourselves.

By way of introduction it may be well to remind the public that the medical profession differs from all other professions in the gravity of the issue entrusted to it. On its skill, honesty, and trustworthiness depend the lives of human beings. To it are given grave responsibilities of life and death. In every civilized country of the world these responsibilities are fully realized by the members of the profession themselves, as well as by the legislature of the land. Entrance to the profession is governed by Act of Parliament, its practice is similarly regulated, every avenue by which the profession may be entered, is safeguarded by examination of the most stringent kind. So far, therefore, as the law can ensure it, the public is safeguared against an inefficient or criminally disposed medical service.

There are few professions which demand so long, so arduous and so costly an apprenticeship as does the medical profession. There are none whose services it is so difficult to assess on a monetary basis.

"No profession," said Dr. A. L. Kenny, in his retiring Presidential address before the Victorian Branch of the British Medical Association in 1914, "is so generous and lavish in the gift of its best services to the deserving; no generosity is so grossly abused. As at present constituted, the community is served by the medical profession in four ways:—

"1. The absolutely poor and destitute have public hospitals in which the services of the medical profession are cheerfully and voluntarily given.

"2. Wage-earners have their Friendly Societies, in which by payment of small contributions, they are entitled *inter alia* to the services of a medical man.

"3. There are private hospitals in which those able to afford the expense, pay a weekly sum for their housing and nursing and arrange with a medical man to attend them at ordinary fees.

"4. Patients are treated at ordinary fees at their own homes.

It is widely known that very unfair advantage of the medical profession is taken under the first two headings."

Wage-earners find it impossible to pay adequate financial remuneration to their medical officers, and hence, as stated, and with the full approval of the medical profession, they combine to form friendly societies, to the success of which medical attendance is essential. Remove the medical

benefits from a Friendly Society and the remaining attractions would be few. It is, therefore, in the best interests of these societies to secure an efficient and adequate medical service.

Impressed by the financial depression, hardship and poverty, which resulted from the disastrous "land boom," many, if not all, of the lodge medical officers reduced their charges to 14s., and even in many instances 12s. 6d., at which figures they have since remained. At a conference between the British Medical Association and representatives of the Friendly Societies of Victoria, held on Saturday, the 13th December, 1913, Dr. Honman stated: "our salaries from the lodges are no higher than they were 20 years ago, when they were reduced when bad times fell on us all—and in some instances they are lower." The public should particularly note that by this action the medical men have presented to the lodges and the community at large services the value of which by this time has run into many hundreds of thousands of pounds. For over 20 years the lodge members, for the treatment of husband, wife and family, have been paying their medical man the sum of 3½d. and even less per week, or not so much as the head of the family spends on his daily supply of cigarettes.

How attractive this—the lowest-paid medical service in the world—has been may be shown by means of another extract from Dr. Honman's speech. He said:—"The Government statist shows that on the basis of a hundred, the males of Victoria have increased to 150, whilst the Friendly Society members have increased from 100 to 278."

This increase means to the medical man, not only that he has an ever increasing amount of lodge work to do on terms which are discreditable to the community, but that his private practice must be constantly diminishing, inasmuch as his lodge work does not afford him time to carry it out, or if he does attempt it, the private patient suffers from adequate lack of time and attention, and thus from the evils of the lodge system the whole community suffers.

Dr. Honman adds: "It will occur to your minds how often the statement has been made that many (lodge) members do not seek the advice of their doctors year in and year out, and there is no doubt, fortunately for us and still more fortunately for them, that this is so, but taking the aggregate amount of work done and the law of average your (friendly society) reports show that 22% of (lodge) members are laid up every year, and the dispensary returns show that 82,000 (lodge) members had 1,200,000 prescriptions made up during the year—an average of close on 15 prescriptions per member per year. . . . We cannot accept the view any longer that we accept the low sum given us because of what we earn besides, because in the majority of cases, if it ever did exist, the presumption remains that the friendly society members are really asking the outside public to pay for the medical benefits they are obtaining at so low a rate.

Impressed, as every unprejudiced person must be, by these facts, of which not a tenth can be said or has been said, the then Honorary Secretary of the British Medical Association addressed, on the 26th August, 1913, a request to the Association of Friendly Societies of Victoria asking for a conference "between members of this Association and representatives of all the Friendly Societies to consider the whole subject of medical attendance by the members of this Association upon members of Friendly Societies of Victoria."

On the 24th November, 1913, the Honorary Secretary of the Association of the Friendly Societies of Victoria replied that: "my Association has decided to accede to your request, and that the members of the Association, numbering 48, and which represent the whole of the Friendly Societies of Victoria, will attend."

The first conference was held on Saturday, the 13th December, 1913. Dr. W. R. Boyd, in opening the conference, stated:—"We (that is the British Medical Association) approach the discussion with a keen desire to effect a satisfactory solution of the grievances of lodge doctors, and with a belief that a satisfactory solution will be quite as much to the interests of the friendly societies as to their medical officers."

From this attitude my Association has never departed. It still believes that a settlement on the very moderate lines laid down by the British Medical Association is in the best interests, not only of the friendly societies, but also of the community as a whole. This was emphasized by Dr. J. F. Wilkinson at the conference just referred to, when he said:—"We therefore feel that we have every reason for holding this conference in the interests of the medical profession, of the friendly societies, and of the public at large. There is profound dissatisfaction existing at present."

The report from which these extracts are taken appeared in the *Australian Medical Journal* for the 27th December, 1913, and no person who has not read it, is competent or entitled to pass any strictures on the action of the British Medical Association. Having read it, together with the special series of articles which appeared in *The Medical Journal of Australia* in the latter half of 1914 on "Contract Practice," he may be in a position to commence thinking about the problem.

It was not until the 13th July, 1914, that the Honorary Secretary of the Friendly Societies finally wrote, stating that "the representatives of this Association will be prepared to meet the representatives of your Association (B.M.A.) at the round table conference on Saturday, the 25th instant."

The meeting was duly held, and was attended by 16 representatives of the British Medical Association and 15 of the Association of Friendly Societies. Five Orders—the

Irish National Foresters,
Melbourne Jewish Mutual Benefit Society,
Melbourne Tramways Benefit Society,
Manchester Unity Independent Order of Oddfellows, and the
Victorian Railways Mutual Benefit Society (which last has no medical benefits)

were not represented, as they did not apparently desire to attend any conference, the ostensible object of which was the betterment of the conditions under which their medical officers worked. On the other hand, it is only fair to point out that Mr. Young, on behalf of the Ancient Order of Foresters, stated "that the lodge surgeons are entitled to an increase, especially the lower paid surgeons. The amount paid is lower than it should be. And every tradesman has been receiving increasing amounts for several years past; it is right and proper that lodge doctors should have a corresponding increase in theirs." (Applause.)

Subsequent to this conference, that is, in August, 1917, at the half-yearly meeting of the Board of Directors of the Manchester Unity Independent Order of Oddfellows, the following resolution was passed:—"That it cannot entertain the invitation to meet representatives of the British Medical Association to consider the question of medical agreements" . . . because "it has been the practice of each lodge to appoint its own medical officers. . . . and as this procedure has hitherto proved most satisfactory, it should therefore be continued and so retain for each lodge its right of freedom of contract."

Further, on the 9th July, 1915, after considerable correspondence, the District Chief Ranger and the District Secretary of the Ancient Order of Foresters wrote to the Secretary of the British Medical Association, stating that "no resolution decided upon would be binding on any society, executive, or branches of a society, for they had no control over courts, lodges, or branches in respect to the appointment of court surgeons or fixing the fees payable." In the same letter it was stated that "as it is evident to the Executive Officers of this Society that you (that is the British Medical Association) desire to create trouble and will persist in mis-stating facts after being corrected, we deem it advisable to hold no further communication with you or your Council." In view of these communications my Council has been compelled to lay it down that it shall in future be an underlying principle that its members shall not contract with any lodge of any order, unless every lodge of that order accepts the new form of agreement.

War broke out in August, 1914, and as the British Medical Association has been widely accused of a breach of faith, if not worse, in resuming negotiations, it is important to notice that the official resolution moved by Dr. W. R. Boyd, and seconded by Mr. Liston, a Friendly Society representative, was as folows:—

> That in this national emergency a recommendation be sent to the Councils of the British Medical Association (Victorian Branch) and the Association of Friendly Societies of Victoria, to postpone the consideration of the matters now under consideration to some future date.

It was also agreed that neither side would take any steps to affect the *status quo*, and that Mr. Stanton Crouch and Mr. Knight, the secretaries of the two Associations, should be authorized to confer at some future date for the purpose of convening a further meeting.

The above resolution has been variously misquoted on many occasions, even by a retiring President of the British Medical Association himself, and as frequently corrected. The facts are, however, as stated, and the documentary evidence in support of them is in the possession of the Association. Under these circumstances the British Medical Association has every legal and moral right, as had also the Friendly Societies, to resume negotiations.

Consequent on the increased cost of living, as every lodge surgeon knows to his sorrow, on the greatly increased price of every instrument, drug, and appliance used in medical practice, on the intense dissatisfaction amongst lodge surgeons with the existing contracts, which is not a growth of yesterday, and on the fact that in New South Wales an amicable agreement had been reached on the very lines now sought in Victoria, my Council decided that, notwithstanding three years of war, the time had properly arrived for a further discussion of the situation.

As President of the Branch I had to be satisfied on two points:—

1. That the resumption of the negotiations by the British Medical Association would not be a dishonourable act.

2. That this resumption was demanded by the lodge surgeons.

An examination of the documentary evidence in possession of the British Medical Association, to which reference has already been made, satisfied me, as it would any independent tribunal, of the justice and honourable character of the first.

As regards the second, my Council called a conference of delegates from the Metropolitan and Country Divisions of the British Medical Association in Victoria to meet the members of my Council on Thursday, 30th May, 1917. This meeting, over which I had the honour of presiding, was attended by more than 50 representative medical men from all parts of Victoria, most of whom were engaged in lodge practice and had first hand knowledge of its many evils.

That meeting fully satisfied me, as it did everyone else who attended it, as to the wishes of the profession concerning the urgency of resuming negotiations with the friendly societies. It is a sufficient refutation of the infamous statement that the present position is the work of a few interested Collins Street specialists.

Not content even with this, my Council circularized every one of its members, and the response has been most emphatic. One hundred per cent. of all lodge surgeons in the Metropolitan area and 94.4% of those in the country have given their written approval of the British Medical Association's action. Further, other independent associations and members of the profession who are not members of the British Medical Association, have not only given their consent to that action, but have asked to be associated with it. These facts will afford the public some indication of the intense dissatisfaction presently existing among the ranks of lodge surgeons, which, as has already been stated, is not a thing of yesterday.

On the 3rd of March, 1917, after having ascertained the wishes of its members, my Council approached the Association of Friendly Societies of Victoria, asking them if they would be good enough to arrange for a joint meeting at as early a date as might be convenient to them. On the 11th April, 1917, the Honorary Secretary of the Association of Friendly Societies wrote:—" I am directed to convey the following resolution which was unanimously passed at a meeting of the full committee appointed by this Association:—

> That all the reasons that existed in 1914, and which caused the postponement, still exist in a more intensified form; the claims on the Societies collectively and individually are greater than they were in 1914, and we are unanimously of opinion that to reopen the Conference at the present juncture is undesirable."

That is to say the Association of Friendly Societies refused even to hear us.

The Secretary of the British Medical Association replied that his Council was not (for reasons which have been adduced in the present official statement) of that opinion, and that it was not prepared to contemplate with friendly spirit any further delay by the Association of Friendly Societies in acceding to its request to reopen a friendly discussion.

On the 8th May the Association of Friendly Societies thought better of it and agreed to reopen negotiations. Five delegates were appointed on each side. At one of these meetings it was pointed out that there were two factors which were indispensable from the British Medical Association's standpoint, namely, the income limit, and an increased remuneration. To this Mr. Mauger, on behalf of the friendly societies, replied:—"Then it will be no use discussing the matter further." At the same meeting another friendly society representative admitted "that his side might have indulged in bluff in the past."

To the two proposals, which were regarded as vital by the British Medical Association, namely the raising of the contract price from 14s. to 20s. in the town, and the acceptance of an income limit, both of which it must be remembered are in actual operation in New South Wales, the five friendly society representatives ultimately gave a partial assent for the one, and absolute refusal of the other. The utmost to which they could be induced to go was an offer of "17s. to town and 24s. to country medical officers, with 14s. for attendance on female lodges, the agreement to come into operation in May next, and no statement of income limit to appear in the new form of agreement."

My Council, in accordance with the definitely ascertained wishes of its members, could not accept this offer which, Mr. Mauger's previously quoted remark had made clear, was final. It therefore instructed its Secretary to write and state that "under the circumstances the (further) meeting arranged for Saturday, 25th August, need not take place."

It is, therefore, incorrect to say that the British Medical Association abruptly broke off negotiations. It has stated its requirements, which have been refused, once verbally and once in writing. Its requirements have been so refused, not by the lodges, but by five delegates thereof.

The Council of the British Medical Association hoped until the last that, as the offer of the delegates of the Association of Friendly Societies could not be accepted, they would have requested a further conference. They did not do so. As a consequence my Council, in accordance with the ascertained wishes of an average of 97.2% of its lodge surgeons, has tendered their resignations with a request that they be reappointed under the terms of the new form of agreement, the two vital clauses of which are as stated, and which is in actual operation in a sister State.

This action has been stigmatized as a "strike" and has called forth various other opprobrious terms from those who know nothing of the circumstances. There is, of course, no "strike" nor will there be. Every member of a lodge will continue to be treated as before. The only difference will be that medical attendance will no longer be obtainable for the price of an indifferent brand of cigarettes. Medical service, consequent on the altered economic outlook, which will be worse before it is better, has necessarily advanced in price.

It must be distinctly understood by the general public that the stand which the British Medical Association has taken is not governed by a mere lust of fees. The actual slight monetary increase now asked for, is not a question of increased income to the medical man. It is governed by the increase in cost of the many appliances, therapeutic agencies, and apparatus which are now essential in the scientific treatment of disease, by the increased cost of time and labour involved by modern clinical methods, and by the general increase in the cost of living. It is not, therefore, a question of fees *versus* humanity, but is rather a problem of providing the general public with an efficient medical service under totally altered economic conditions, and of preventing the abuse of the generosity of a profession the services of which are of vital importance to the community.

One country delegate at the conference to which reference has already been made, stated:—

"With regard to the income limit, there is not the slightest doubt, especially in country districts, that imposition has

been practised in a very marked way. I can personally vouch for one man who was worth anything from £30,000 to £40,000. Any attendance I paid him was taken simply as part and parcel of an obligation I owed him." From this individual the medical man received 3½d. per week for attendance on the patient.

Another country delegate from another centre gave similar evidence. He stated:—"I had one lodge patient who died worth £60,000." For the same rate of 3½d. per week the medical man attended this patient twice a day for four months.

Yet another country delegate from yet another district further testified that he knew of one lodge member who sold a block of land for £20,000—only a small portion of his property. While this was being done, he had the lodge doctor in attendance to whom the rates paid were again 3½d. per week. The patient was, in addition, receiving 20s. per week for sick pay from his lodge.

This same medical witness also testified that in his district lodge patients drive up to their medical man in £800 motor cars with liveried chauffeurs, and that at least 20 of them keep cars for pleasure purposes only. Such patients invariably expect and demand more attention from the lodge surgeon than their less wealthy fellow members, and thus endeavour, quite unfairly, to monopolize the medical man's time and energies. Attendance on such patients clearly occupies an inordinate amount of time and skill, and this is obtained at the expense of the poorer lodge member. The acceptation of an income limit, which is devised solely in the interests of the poorer lodge member, is thus to the advantage of every lodge, for so far from restricting their membership, it should rather tend to increase it, because it will provide a much more efficient medical service for everybody concerned.

The examples given above are not isolated instances. Every lodge surgeon could furnish others. The British Medical Association has made the most careful inquiries into this phase of the question, and has elicited much evidence of the gross abuse of lodge contract practice. It has now determined that it shall cease, and on this point it is adamant. That it did not cease long ago it simply due to the fact that in the past there have been thoroughly organized associations of friendly societies with a large membership and an even larger balance at the bank who, by bartering with individual medical men, could extract almost any terms they liked to impose. To-day these conditions no longer exist.

Dr. J. F. Wilkinson summed up what this abuse by the lodges means to the general public in the following words:—

"Medicine to-day and medicine twenty years ago are absolutely two different things. The time we have to give to our hospital work has increased enormously owing to the more scientific investigations now necessary in order to diagnose and treat cases properly. One cannot satisfy one's conscience with the kind of work that was done a few years ago. The investigation of the simplest case now means an infinity of time and trouble. If you are going to get this time and trouble given to your members, you must place your doctors under such conditions as will enable them to do their best for you. There is not a profession which calls for such a strain on a man as the medical profession; men are at it day and night; and in order to make a reasonable income, lodge surgeons have to take far more names on their list than they can really give adequate time to. We want to make the conditions such that lodge practice will be ideal work."

Another of the British Medical Association delegates, Dr. B. Crellin, stated at one of the most recent of the many conferences that have been held between the two parties that he personally did not desire in increase of income, but a limitation of the number of lodge members on his list. In this way he could give more personal and better attention to his lodge patients, might thus obtain some leisure for study, and by keeping himself abreast of medical progress, benefit everyone of his patients, both contract and private.

To-day, therefore, it is the undoubted duty of the medical profession to see that the community shall not suffer from the selfishness of those who would, by imposing on the charity of the medical profession, place a limit on the time and attention to which non-lodge members, rich or poor, are entitled.

How much the public owes to the generosity of the medical profession it neither knows nor cares. Suffice it to say that in 1912, 157,618 persons (or nearly one quarter of the whole population of Melbourne) were treated by that profession absolutely free of charge. Is there any other profession which can say as much? Is there any friendly society which has done as much? It has already been shown that the income limit clause is inserted in the new form of agreement to guard against abuse, and to enhance the efficiency of the medical service to the friendly societies. It will only be exercised where abuse is suspected and will have about it nothing inquisitorial. Further, the income limit will not apply if, by reason of having many persons dependent upon him, the lodge member is in fact in poor circumstances and unable otherwise than through the medical benefit of the lodge to provide medical attendance for himself and those dependent upon him; nor will it apply to present members.

Whilst the British Medical Association will not depart one iota from the two fundamental principles involved, namely, the slightly increased rate of payment, which has been paid in New South Wales during the whole period of the war, and the adoption of the income limit, it has willingly waived many other points. It has, for example, decided that dependants of lodge members on active service are in no way to be affected by the resignations now tendered. They are to be attended without fee until the member on active service is discharged from the service as a soldier, or until cessation of lodge membership, whichever shall occur first. It has further offered to provide a sliding scale for those lodge members whose incomes exceed £312 per annum; and lastly, there is no question of restricting lodge membership.

Medicine devotes itself whole-heartedly and ungrudgingly to the welfare of the community. For it there is no eight hours a day, nor is there the princely reward the public thinks. In an average life of sixty years the medical man has only one-half of that life to devote to the acquisition of an income. If he be a lodge surgeon, that income will, according to Dr. Honman, amount, on an average, to £194 per annum.

Under the guise of charity medical services are constantly abused, and in the interests of suffering humanity the British Medical Association has determined that the time for its cessation is here and now.

On behalf of the Victorian Branch of the British Medical Association,

R. J. A. BERRY, M.D., F.R.C.S., F.R.S.E.,
President.

Melbourne,
15th November, 1917.

## THE DISCOVERY OF CHLOROFORM.

Sir,—The elaborate discovery of the Chicago committee as to chloroform is very little to the point as regards its introduction as an anæsthetic. In Simpson's original paper he wrote:—"Chloroform was first discovered and described at nearly the same time by Soubeiran (1831) and Liebig (1832); its composition was first accurately ascertained by that distinguished French chemist Dumas, in 1835. . . . But no person so far as I am aware has used it by inhalation or discovered its remarkable anæsthetic properties till the date of my own experiments."

The "discovery" of chloroform is only of interest to the world in the application to anæsthesia; and no side issues should be allowed to put Simpson's name in the background, either in Chicago or elsewhere.

Yours, etc.,

November 12, 1917.

ALEX. LEWERS.

[Dr. Lewers's letter introduces a subject with which we did not deal in the article referred to. While we agree with him that the application of chloroform as an anæsthetic is of immense importance to the world, we would wish to point out that this application would have been impossible, had the chemical substance not been discovered. Simpson's

dates of the first description by Soubeiran and Liebig, are obviously incorrect, as was shown in our article published on November 10, 1917. That the former was mistaken concerning the chemical constitution of chloroform is shown by the fact that his analysis led him to accept a formula containing one atom of carbon, two of hydrogen and two of chlorine, and that he introduced the term *éther bichlorique* for this substance.

## Proceedings of the Australasian Medical Boards.

### NEW SOUTH WALES.

The following have been registered as duly qualified medical practitioners under the provisions of "The Medical Act, 1912 and 1915":—

Howell, David Leslie, M.B., Mast. Surg., 1917, Univ. Sydney.
Kirkland, Hamilton Speirs, M.B., Mast. Surg., 1917, Univ. Sydney.
Saxby, George Jacob Maxwell, M.B., 1917, Univ. Sydney.
Stormon, Michael Oswald, M.B., Mast. Surg., 1917, Univ. Sydney.
Dunstan, Harold Fleming, M.B., Bac. Surg., 1914, Univ. Melbourne.
Knowles, Kate, M.B., B.S., 1904, Univ. London.
James, William Robert Wallace, Lic. R. Coll. Phys., Edin., 1891; Lic. R. Coll. Surg. Edin., 1891; L.F.P.S., Glasg., 1891.

Additional Registrations:—

Hodgkinson, Henry Richard, M.D., 1917; Univ. Sydney.
Dart, Raymond Arthur, Mast. Surg., 1917, Univ. Sydney.
Matters, Reginald Francis, Mast. Surg., 1917, Univ. Sydney.
Sandford, Elma Linton, Mast. Surg., 1917, Univ. Sydney.
Sillar, Roy Allen, Mast. Surg., 1917, Univ. Sydney.

## Medical Appointments Vacant, etc.

**For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," Page xiii.**

Gin Gin Hospital, Medical Officer.
Royal North Shore Hospital, Sydney, Honorary Ophthalmic Surgeon.

## Medical Appointments.

### IMPORTANT NOTICE.

**Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.**

| Branch. | APPOINTMENTS. |
|---|---|
| TASMANIA. (Hon. Sec., Belvrive, Tasmania.) | Medical Officers in all State-aided Hospitals in Tasmania. |
| VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.) | Brunswick Medical Institute.<br>Bendigo Medical Institute.<br>Prahran United F.S. Dispensary.<br>Australian Prudential Association Proprietary, Limited.<br>National Provident Association.<br>Life Insurance Company of Australia, Limited.<br>Mutual National Provident Club. |
| QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.) | Medical Officers to the Selwyn Hospital, North Queensland.<br>Brisbane United Friendly Society Institute. |
| SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.) | The F.S. Medical Assoc., Incorp., Adelaide.<br>Contract Practice, Appointments at Renmark. |
| WESTERN AUSTRALIA. (Hon. Sec., Health Department, Perth.) | All Contract Practice Appointments in Western Australia. |
| NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.) | Australian Natives' Association.<br>Balmain United F.S. Dispensary.<br>Canterbury United F.S. Dispensary.<br>Leichhardt and Petersham Dispensary.<br>M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney.<br>Marrickville United F.S. Dispensary.<br>N.S.W. Ambulance Association and Transport Brigade.<br>North Sydney United F.S.<br>People's Prudential Benefit Society.<br>Phœnix Mutual Provident Society.<br>F.S. Lodges at Casino.<br>F.S. Lodges at Lithgow.<br>F.S. Lodges at Parramatta, Penrith, Auburn and Lidcombe.<br>Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend. |
| NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.) | Friendly Society Lodges, Wellington, N.Z. |

## Diary for the Month.

Nov. 27.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Nov. 27.—Vict. Branch, B.M.A., Ballot Papers for Election of Members of Council Issued.
Nov. 28.—Vict. Branch, B.M.A., Council.
Nov. 29.—S. Aust. Branch, B.M.A., Branch.
Nov. 30.—N.S.W. Branch, B.M.A., Branch.
Dec. 4.—N.S.W. Branch, B.M.A., Ethics Committee.
Dec. 4.—Vict. Branch, B.M.A., Ballot Papers for Election of Member of Council Returned.
Dec. 5.—Vict. Branch, B.M.A., Annual Meeting.
Dec. 7.—Q. Branch, B.M.A., Annual Meeting.
Dec. 11.—Tas. Branch, B.M.A., Council and Branch.
Dec. 11.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Dec. 12.—South Sydney Med. Assoc. (N.S.W.).
Dec. 13.—Vict. Branch, B.M.A., Council.
Dec. 14.—S. Aust. Branch, B.M.A., Council.
Dec. 14.—N.S.W. Branch, B.M.A., Branch.
Dec. 18.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Dec. 20.—City Medical Association (Sydney, N.S.W.).
Dec. 21.—Q. Branch, B.M.A., Council.

### EDITORIAL NOTICES.

**Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.**

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